

Yamaha MusicCast HTTP simplified API for Control Systems

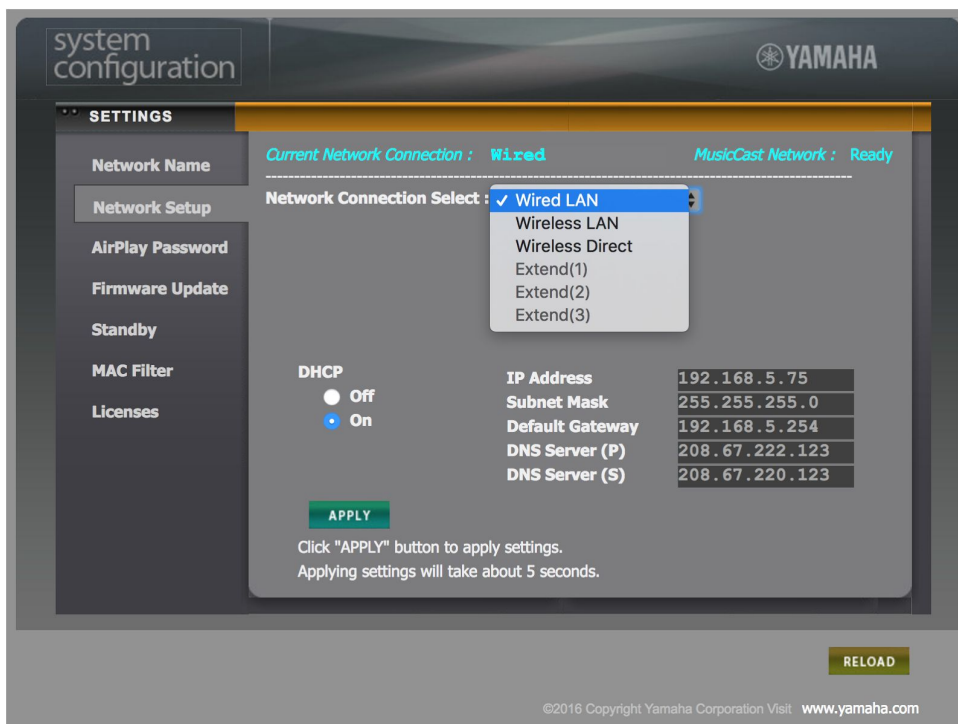
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Overview

Yamaha provide a comprehensive API for control and interrogation of MusicCast devices. This document covers the most useful features, with examples, for integration in to CI Environments.

Prerequisites/Recommendations

For the HTTP API to function correctly in an integrated system, the MusicCast devices **must** be on a fixed or bound IP Address. To avoid network loops through the wireless “extend” functionality of MusicCast products you should set the device to wired or wireless only - through the web GUI on the MusicCast device:



Functions available through the API

Function	Description
Information	Get device info, available features, Network, Audio and Power Status
Power	Set Power status and enable/disable auto-standby
Input / Audio	Set Input, Volume level, sound program
Tuner	Use the inbuilt FM/AM/DAB Tuner (if available) to recall and set presets, or tune to a frequency
Streaming Presets	Recall and Set presets for Streaming Music Services
System Presets	Recall and Set presets on the MusicCast device (for any source)
Transport Control	Control all transport aspects of media and set repeat and shuffle modes
App Jump	iOS App Jump to MusicCast App

HTTP API Overview

All HTTP transactions take place through a connection to the MusicCast device on port 80 (the default used by a web browser), and take the following form:

HTTP://[ipaddress]/YamahaExtendedControl/v1/...

Example:

<http://192.168.5.219/YamahaExtendedControl/v1/system/getFeatures>
(recalls the available features on the MusicCast device)

HTTP API - Get information

Note that when a zone is specified below, the available zones per device can be recalled using the *getLocationInfo* command. In all examples **main** has been used.

Get Device info	http://192.168.5.219/YamahaExtendedControl/v1/system/getDeviceInfo
Get Available Device Features	http://192.168.5.219/YamahaExtendedControl/v1/system/getFeatures
Get Network Status	http://192.168.5.219/YamahaExtendedControl/v1/system/getNetworkStatus
Get Function Status (e.g.: Auto Power Standby)	http://192.168.5.219/YamahaExtendedControl/v1/system/getFuncStatus
Get Location info and zone list (device)	http://192.168.5.219/YamahaExtendedControl/v1/system/getLocationInfo
Get zone info (device zone)	http://192.168.5.219/YamahaExtendedControl/v1/main/getStatus
Get Sound Program List (device zone)	http://192.168.5.219/YamahaExtendedControl/v1/main/getSoundProgramList

HTTP API - Power Functions

Enable/Disable Auto Power Standby	http://192.168.5.219/YamahaExtendedControl/v1/system/setAutoPowerStandby?enable=true http://192.168.5.219/YamahaExtendedControl/v1/system/setAutoPowerStandby?enable=false
Power on	http://192.168.5.219/YamahaExtendedControl/v1/main/setPower?power=on
Standby	http://192.168.5.219/YamahaExtendedControl/v1/main/setPower?power=standby
Power Toggle	http://192.168.5.219/YamahaExtendedControl/v1/main/setPower?power=toggle

HTTP API - Sleep Timer

Set in minutes. Use zone name from *getLocationInfo*

Set Sleep timer for 60 minutes	http://192.168.5.219/YamahaExtendedControl/v1/main/setSleep?sleep=60
Cancel Sleep timer	http://192.168.5.219/YamahaExtendedControl/v1/main/setSleep?sleep=0

HTTP API - Input and Volume

Input: Net Radio	http://192.168.5.219/YamahaExtendedControl/v1/main/setInput?input=net_radio
Input: Napster	http://192.168.5.219/YamahaExtendedControl/v1/main/setInput?input=napster
Input: Spotify	http://192.168.5.219/YamahaExtendedControl/v1/main/setInput?input=spotify

Input: Juke	http://192.168.5.219/YamahaExtendedControl/v1/main/setInput?input=juke
Input: Qobuz	http://192.168.5.219/YamahaExtendedControl/v1/main/setInput?input=qobuz
Input: Tidal	http://192.168.5.219/YamahaExtendedControl/v1/main/setInput?input=tidal
Input: Deezer	http://192.168.5.219/YamahaExtendedControl/v1/main/setInput?input=deezer
Input: Server	http://192.168.5.219/YamahaExtendedControl/v1/main/setInput?input=server
Input: Bluetooth	http://192.168.5.219/YamahaExtendedControl/v1/main/setInput?input=bluetooth
Input: Airplay	http://192.168.5.219/YamahaExtendedControl/v1/main/setInput?input=airplay
Input: MusicCast link	http://192.168.5.219/YamahaExtendedControl/v1/main/setInput?input=mc_link

The functions in the table above use autoplay to start the last item playing if the source is not already playing. Alternatively the *autoplay_disabled* function can be used:

```
http://192.168.5.219/YamahaExtendedControl/v1/main/setInput?input=airplay&mode=autoplay_disabled
```

Prepare Input Change (not necessary for direct input changes)

Let a Device do necessary process before changing input in a specific zone. This is valid only when *prepare_input_change* exists in *func_list* found in */system/getFuncStatus*.

```
http://192.168.5.219/YamahaExtendedControl/v1/main/prepareInputChange?input=usb
```

Set Sound Program (where applicable)

<http://192.168.5.219/YamahaExtendedControl/v1/main//setSoundProgram?program=vienna>

Volume Commands

For the Direct Volume function, the maximum volume setting available can be obtained from /system/getFeatures. For the stepped volume function the step ranges are shown in the volume section of /system/getFeatures.

Direct Volume	http://192.168.5.219/YamahaExtendedControl/v1/main/setVolume?volume=60
Incremental	http://192.168.5.219/YamahaExtendedControl/v1/main/setVolume?volume=up http://192.168.5.219/YamahaExtendedControl/v1/main/setVolume?volume=down
In Steps	http://192.168.5.219/YamahaExtendedControl/v1/main/setVolume?volume=up&step=1 http://192.168.5.219/YamahaExtendedControl/v1/main/setVolume?volume=down&step=1

Mute Commands

Set Mute On	http://192.168.5.219/YamahaExtendedControl/v1/main/setMute?enable=true
Set Mute Off	http://192.168.5.219/YamahaExtendedControl/v1/main/setMute?enable=false

HTTP API - AM/FM/DAB Tuner Commands

Tuner Presets

Where *band* can be am, fm or dab

Recall Preset	http://192.168.5.219/YamahaExtendedControl/v1/tuner/recallPreset?zone=main&band=fm&num=13
Next Preset	http://192.168.5.219/YamahaExtendedControl/v1/tuner/switchPreset?dir=next
Previous Preset	http://192.168.5.219/YamahaExtendedControl/v1/tuner/switchPreset?dir=previous
Store Preset	http://192.168.5.219/YamahaExtendedControl/v1/tuner/storePreset?num=10
Get Preset info	http://192.168.5.219/YamahaExtendedControl/v1/tuner/getPresetInfo?band=fm

Tuner - Get Playing info

<http://192.168.5.219/YamahaExtendedControl/v1/tuner/getPlayInfo>

Tuner - Set Frequency

Where num represents frequency in KHz

<http://192.168.5.219/YamahaExtendedControl/v1/tuner/setFreq?band=fm&tuning=direct&num=87500>

Tuner - Change DAB Service

Next Service	http://192.168.5.219/YamahaExtendedControl/v1/tuner/setDabService?dir=next
Previous Service	http://192.168.5.219/YamahaExtendedControl/v1/tuner/setDabService?dir=previous

<http://192.168.5.219/YamahaExtendedControl/v1/tuner/setFreq?band=fm&tuning=direct&num=87500>

HTTP API - Network/USB Presets and info

Recalls presets for any network or USB-based service. Playing info includes all metadata and image link

Get Preset info	http://192.168.5.219/YamahaExtendedControl/v1/netusb/getPresetInfo
Get Current Playing info	http://192.168.5.219/YamahaExtendedControl/v1/netusb/getPlayInfo
Get Account Status (streaming services)	http://192.168.5.219/YamahaExtendedControl/v1/netusb/getAccountStatus

HTTP API - System Presets

Recalls presets for the MusicCast system. Use zone name from *getLocationInfo*.

Recall Preset	http://192.168.5.219/YamahaExtendedControl/v1/netusb/recallPreset?zone=main&num=13
Store Preset	http://192.168.5.219/YamahaExtendedControl/v1/netusb/storePreset?num=10

HTTP API - Transport Control

Sets Playback or transport mode.

Stop	http://192.168.5.219/YamahaExtendedControl/v1/netusb/setPlayback?playback=stop
Play	http://192.168.5.219/YamahaExtendedControl/v1/netusb/setPlayback?playback=play
Previous	http://192.168.5.219/YamahaExtendedControl/v1/netusb/setPlayback?playback=previous
Next	http://192.168.5.219/YamahaExtendedControl/v1/netusb/setPlayback?playback=next
Fast Rewind - Start	http://192.168.5.219/YamahaExtendedControl/v1/netusb/setPlayback?playback=fast_reverse_start
Fast Rewind - Stop	http://192.168.5.219/YamahaExtendedControl/v1/netusb/setPlayback?playback=fast_reverse_end
Fast Forward - Start	http://192.168.5.219/YamahaExtendedControl/v1/netusb/setPlayback?playback=fast_forward_start
Fast Forward - Stop	http://192.168.5.219/YamahaExtendedControl/v1/netusb/setPlayback?playback=fast_forward_end
Repeat (Toggle)	http://192.168.5.219/YamahaExtendedControl/v1/netusb/toggleRepeat
Shuffle (Toggle)	http://192.168.5.219/YamahaExtendedControl/v1/netusb/toggleShuffle

HTTP API - List info

Retrieve metadata and list entries. *input* is Input ID from /system/getFeatures | *index* is list offset from beginning | *size* is maximum list size 1-8)

```
http://192.168.5.219/YamahaExtendedControl/v1/netusb/getListInfo?input=usb&index=32&size=8&lang=en
```

iOS App Jump

Use this App Jump as a deep link to jump directly to the MusicCast App

```
jp.co.yamaha.avkk.musiccastcontroller://
```

Further assistance:

Contact our workshop:

01256 638500 **Option 3**
or workshop@habitech.co.uk