

CRESTRON APPLETV IP REMOTE FAQ

INTRODUCTION

Ultamation's module for Crestron control provides IP control and feedback for the recent generations of the Apple TV. This document attempts to answer the common questions.

COMPATIBILITY

Which generations of Apple TV does the module support?

The module has been tested with generations 2, 3 and the latest 4th generation.

What if Apple change the way they do things?

There is no guarantee that Apple won't change the way the Apple TV is controlled, as they did between the 1st generation unit and the next. Whilst this is a concern, we believe the likelihood of Apple making a breaking change is limited since the protocol is common between a number of end-points (e.g. iTunes, Apple TV, the "Remote" iOS app). Given that the latest 4th generation device continues to use Home Sharing authentication and a consistent protocol we feel this further reduces the likelihood of future compatibility issues.

Which Crestron processors will the module work on?

The module requires Crestron's 3-Series processors as it is written in SIMPL#. 2-Series processors and earlier are not supported.

Will this work with Crestron PYNG?

Not at present. We'd be happy to discuss this with Crestron.

Will this work with the Smart Graphics™ Media Player application?

The initial release is not compatible with the Media Player application, but we are considering a "professional" version that will integrate with the application.

What if I want to add another Apple TV to the system?

The module supports multiple Apple TVs but each instance of the module requires a unique licence key which is tied to the Apple Id used for Home Sharing and the device's name or, for earlier versions of the module, IP address in the installation.

What if the client has multiple Home Sharing Ids?

Each discrete Home Sharing Id will require its own licence. Multiple modules can use different Home Sharing Ids against different Apple TVs. We have not tested dynamic changing of the Home Sharing Id on a single Apple TV and this is not supported.

Is the control compatible with all Bluetooth remote functions

At present, we can only implement what Apple exposes via the IP protocol and the various control methods (IR, Bluetooth, IP) are not yet in parity. We understand that Apple will release a new iOS app and updates to TVOS to provide the same functionality via IP as the Bluetooth remote offers. At that time, we will look to implement these functions. Until then, some features – such as some apps and games – may not work with the module.

FEATURES

What are the advantages of controlling over IP compared to IR?

There are many. From an installation perspective, the Apple TV will not require an IR bud, which can represent a sizable chunk of the module cost. These are susceptible to falling off and also require additional installation effort (if done neatly!). There is no possibility of "cross-talk" between IR buds on adjacent Apple TVs. A free IR port will be required which, once the on-board outputs are exhausted, can be an expensive addition. The module uses the Ethernet cable that is already necessary for communication. Not only do we offer more discrete control over IR, but we also provide feedback for certain functions.

What does the module provide?

The standard module provides the same control as the silver Apple TV remote – i.e. up, down, left, right, play/pause and menu. We've also included transport control skip back, skip forward, play, pause and stop. In addition, we provide feedback for various functions, such as player state, device name, and so on. Please refer to the module datasheet for detailed information.

Is the control robust?

We believe so. Please watch our YouTube video where we demonstrate control of three Apple TVs. We disconnect the Ethernet cable from one and the module reconnects when the connection is remade. We have also tested by removing the power from the Apple TV and once it has rebooted, control is restored.

TECHNICAL

I thought Apple had locked things down... how does it all work?

We're not going to give the game away, but the idea that Apple have "locked down" the Apple TV is not quite accurate. An encrypted DRM mechanism is involved in most streaming activities, but for control and general feedback, the Crestron system need only authenticate with the Apple TV. Apple's "Bonjour" device discovery and "Home Sharing" is the basis for this.

Do I need to configure anything on my Apple TV?

Yes – you will need to give your Apple TV a unique name, (or use the earlier mechanism of static IP address), and turn on Home Sharing. Both pieces of information must match the details used when purchasing the module. Please refer to Apple's support site <https://www.apple.com/support/> for information on how to do this for each of generation of device. Also, set 'Sleep' to 'Never' (see below).

Does the module require access to the Internet?

For initial Home Sharing authentication, the module does require a valid Internet connection and working DNS. Once successfully authenticated, the Home Sharing "key" is cached in a file on the Crestron processor (\NVRAM\Ultamation\hs.cache). This cache is used from then on, and the Internet is no longer required (though the Apple TV functionality will be severely limited). The cache file (or entries from it) can be copied from a device which has previously authenticated for a given Home Sharing id.

Can I let my Apple TV go to sleep?

No, as – without IR or Bluetooth – there is no way to wake up the Apple TV (we have not tested WoL though this may provide an alternative to turning off sleep).

How many Apple TVs can I control within a system?

There are no limits within the module on the maximum number of devices in a single system, but there may be a limit based on processor performance. We are unaware of what that limit might be.

I do not have a static IP address for my Apple TV?

As of v1.10, that's no longer a problem. We have taken on-board the feedback from clients & partners and have implemented Apple's Bonjour device discovery to allow the Apple TVs to use any IP address (either static or dynamic). The device does need to be in the same Bonjour domain as the Crestron processor.

Can I use any IP address for the Apple TV?

Apple's Home Sharing requires all participating devices to be on the same subnet/broadcast domain. If in doubt, ensure that your Apple TV addresses are in the same logical network as your Crestron processor.

My Apple TV is not responding to commands, what should I do?

Contact support@ultamation.com and we will do everything we can to get you up and running.

What if I (or my client) resets the Apple TV?

If the Apple TV is reset to factory defaults, it will stop working with the module. You will need to apply the correct Home Sharing, Name (or IP address) and sleep settings to get it working again.

LICENCING

Why do you need the client's Home Sharing Id & Password?

Apple's mechanism for control and sharing information requires that devices be part of the same Home Sharing domain. That means that the Crestron system also needs to authenticate with the Home Sharing services. Therefore, Home Sharing must be used on the AppleTV for the module to work.

Why do you require the client's Home Sharing Id at time of purchase?

The licence key is linked to a specific Home Sharing Id and this cannot be changed once purchased, so it is extremely important that the Apple Id is entered carefully and accurately.

Why do you require the Apple TV's Name at time of purchase?

The licence key is linked to a Apple TV to be controlled's unique name and this cannot be changed once purchased. Care should be taken to enter this information (though it is NOT case sensitive).

What if I want to change the Apple TV's Name after purchase?

A licence cannot be transferred. Any change to Home Sharing Id or Name, or errors made at the time of purchase will require an additional licence to be purchased.

Can I use this module on multiple systems?

The module is licenced for a specific Apple TV device and Home Sharing account, so a new licence is required for each system/device.

What if the client changes his Home Sharing Id?

This will require a new module licence key to be purchased, and the program will require recompiling with the new Home Sharing Id (and possibly password) and key entered into the module parameters.

I have misspelt the Home Sharing Id on purchase, what do I do?

Unfortunately, this will require the purchase of an additional licence. If you are unsure about the information required at the point of purchase, we will be happy to validate it for you. Please contact support@ultamation.com

The client no longer wants Apple TV control, can I get a refund?

No. Once purchased, the Home Sharing Id & Name (or IP address) combination is unique and cannot be returned.