UnityRemote

User Guide

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i. Introduction

Thank you for purchasing UnityRemote™ by GEAR4. UnityRemote is designed to work with your iPhone or iPod touch to give you full control over your home electronic devices.

This User Guide is designed to help you through any troubleshooting you may require during the setup and maintenance of your UnityRemote.

ii. Compatibility

UnityRemote is compatible with the following devices:
iPhone 3G
iPhone 3GS
iPhone 4
iPod touch 2G
iPod touch 3G
iPod touch 4G

UnityRemote requires iOS 3.1.3 or iOS 4.2.

Please note that UnityRemote is compatible with iPad, however the iPad-specific app has not yet been released.

iii. Questions & Comments

If you have questions or comments about UnityRemote, please do not hesitate to contact Gear4. The best way to get in touch with us is by e-mail: support@gear4.com

1. Quick Start

1.1. Inserting the batteries

Remove the battery cap compartment from the bottom of the UnityRemote device by turning it counter clockwise

Insert the 3x AA batteries provided and close the battery compartment cap by rotating it clockwise.

1.2. Powering UnityRemote for the first time

Press the button located on the back of UnityRemote for half a second to switch it on. The red steady light will stay on for 3 seconds to indicate UnityRemote is powered up.

UnityRemote's status LED will slowly blink to indicate it is in pairing mode. If the LED does not blink, press the button for half a second to switch UnityRemote off. Then press and hold the button until the solid light turns into a blinking light.

On your iPhone, iPod touch or iPad, open the Settings panel. Tap on General > Bluetooth.

Ensure that Bluetooth is turned on and after a few seconds UnityRemote will appear in the list of devices (on some versions of iOS, UnityRemote may appear as 'Misc.'). Tap on it to start the pairing process

Your iPhone will display a warning message asking if you wish to allow UnityRemote to pair to your device. Tap yes.

Your iPhone will display a message indicating that the accessory requires an application. Click Yes to go to the App Store to download the UnityRemote App. Launch the app and follow the Setup Assistant.

2. Application Overview

2.1 Structure of the app

The app is divided into three sections: Unity, Devices and Configuration

The Unity screen
The Unity screen shows the number of unified onscreen remotes created from Actions by the user. A single onscreen remote will mix several devices together to offer a more integrated experience (volume buttons will control your TV, channel buttons will control your cable box).
Actions are a set of steps that enable you to switch on several devices, switch inputs, set channels and so on. 'Watch TV', 'Watch Movie' or 'Listen to Music' are all examples of Actions.

The Devices screen
The Devices screens show the individual devices you have setup with the app. A Sony TV, Samsung DVD player, a satellite receiver box are all examples of Devices. Contrary to the Unity screen where you control several devices with a single onscreen remote, the Devices screen lets you pick a single device to control.

The Configuration screen
The Configuration screen let's you launch the Setup Assistant, add devices manually, change the settings of your UnityRemote hardware and much more. For added clarity, the configuration screen is sub-divided in several sections.

3. Onscreen Remotes

Onscreen remotes are found on the Unity and Devices screen. Instead of trying to recreate a physical remote control onscreen, the UnityRemote app transposes controls into a 'real' iOS format.

3.1. Using an onscreen remote

To access an onscreen remote, press a Device or an Action.

A typical Device list; Tap a Device to access the onscreen Remote

- An onscreen remote is made up of 9 buttons at a time.
- If you are using an Action, you will notice the buttons sometimes have different colours. Each colour represents a device that corresponds to that particular action.
- Press a button to send an infrared command to your home electronics device.
- Many buttons are set to allow ‘continuous’ commands. For example, press and a hold a volume button to keep increasing or decreasing the volume instead of tapping multiple times.
- Swipe the screen to access additional buttons. The white dots at the bottom of the screen will show you how many panels are available, just like on your Home screen.
- There are some special buttons that give access to a different panel: Keypad, Gestures, Joystick and Favorites.

- You can press the Edit button to change the layout of your remote or the individual key options. See ‘Editing an onscreen remote’ for further details.

The standard onscreen remote for a TV.
Notice the 4 dots at the bottom indicating additional panels

Note: You will notice that if you do not press a button for a while, there will be a small delay (shown as 'Communicating with Unity') when pressing a button. This is part of UnityRemote power management (time to 'wake up' some components), where subsequent presses thereafter will be responsive as usual.

3.2 Gestures panel

The Gestures panel lets you use UnityRemote without looking at the screen. This recreates the experience you have with a physical remote where you roughly know where some important buttons are located, such as Volume and Channels.
Gestures consist of tap, double tap and sliding your finger up, down, left, right on the screen.
The graphic in the background shows what commands are assigned to each gesture. In the example below:

- Volume up is swipe up
- Volume down is swipe down
- Channel up is swipe to the right
- Channel down is swipe to the left

- Dual is one tap
- Mute is a double tap

Gesture panel for a HDTV

3.3 The Number pad panel

The number pad panel is found on TV on-screen remotes (and some other devices) and enables you to enter a channel number directly.

Some Televisions require you to enter what is called a delimiter to accept the channel numbers you have pressed. The delimiter keys are located on the bottom left and right of the number pad panel. You can change these delimiters if required by pressing the Edit button at the top right corner of the screen.

3.4 The Favorites panel

The Favorites panel displays up to 9 favorite TV channels. When you press a Favorite, UnityRemote will send a number key sequence (with a delimiter if required) to your receiver or TV. For example, instead of pressing the 1 – 0 – 1 keys, you can setup a favorite that will send the same keys at the press of one button.

When first used, the favorites panel is empty. Press the Edit button at the top right corner of the screen to create a new favorite.

For full instructions on how to create a favorite, please refer to the ‘Configuration section’.

3.5 The Joystick panel

The Joystick panel contains keys used to navigate menus on many devices (up, down, left, right, enter).

Note that many home electronics devices allow you to press/hold a button to browse quicker through a menu.

3.6 Editing an onscreen remote

Editing the layout
You can change the position of a button on an onscreen remote, remove a button, add a new one and change the options of a particular button by pressing the Edit button.

- When tapping the Edit button, icons onscreen will start shaking in similar fashion to home screen buttons of your iOS device. You can:
    - Move a button to a different position on the same panel
    - Move a button to a different panel by pressing and dragging it to the left or right side of the screen
    - Delete a button by tapping the cross sign
    - Add a button by tapping an empty cell. Empty cells are shown with a + sign when you enter edit mode

Onscreen Remote in Edit mode. Notice the 'Layout' and 'Key Options' tabs

Editing Key Options

The navigation bar at the top of the screen will show two options once you have pressed the Edit button: Layout (default selection) and Key Options.

Tap Key Options and the icons will stop shaking and start glowing instead. Tap on an icon to change its specific options.

For a full detail of all Key options, please review the 'Configuration section'.

4. The Configuration Screen

UnityRemote offers enormous amounts of flexibility by allowing you to modify many different settings and adjust them to the requirements of your home electronics devices or simply your personal preferences.
If something does not work for you, it is likely the solution can be found in the Configuration panel.

4.1 Configuration Screen organisation

General section

The first level of the configuration screen

The General section contains:

- UnityRemote Devices: Gives you access to hardware specific settings for UnityRemote, such as the name of your device, power management options and reset options.
- Gestures: Enables you to configure Gestures for Actions and Devices, such as determining what command will be sent for a particular swipe gesture on screen.
- Run Setup Assistant: The Setup Assistant is a core part of the UnityRemote app. If you wish to avoid many setup headaches, use it!

Functions and Layout

- The Functions and Layout section contains:
- Devices: Lets you add devices and change their options and configuration.
- Actions: Lets you add Actions and change the individual steps that form the action.
- Background: Enables you to change the background picture displayed on the Actions and Devices tabs.

Advanced

- Sound On Tap: Enables you to set your iPhone to vibrate or produce a sound when a key is pressed.
- Auto-Connect Time: Powers UnityRemote ON and OFF at certain times of the day
- Actions Help: This setting enables or disables the built-in help system when launching an action. The help system fixes issues such as devices not powered on or identifying the wrong video input; help is based on the answers you provide
- Keep Unlocked: Keeps your screen unlocked to give you quicker access to the UnityRemote application when running.
- Show Errors: Displays communication timeouts or errors. Leave this option turned off unless asked by technical support.
- Sharing: Allows you to share your configuration with other iOS devices. Please note that Wi-Fi must be turned off when you attempt to share (iOS 4.2 at the time of writing. This may change with future iOS releases).

Other

- About: Shows information about the app, the UnityRemote device you are using, the devices battery level and it also lets you generate a configuration file. Configuration files are useful for technical support as they show how devices and actions are setup.

4.2 UnityRemote Devices

Tapping the UnityRemote Devices cell will show you the UnityRemotes you have setup so far. Tap on the UnityRemote shown in the ‘In Range’ section.

Note: iOS does not currently support the connection to multiple Bluetooth accessories. Therefore, it is not recommended to use multiple UnityRemotes with a single iPhone.

Edit UnityRemote Screen

The UnityRemote hardware screen

Device Name: Enables you to change the Device Name as it appears in the iOS Bluetooth menu. Please note that iOS will ignore the name change until you pair the device again.

Accessory Info: Displays technical information about the UnityRemote, such as version numbers and serial numbers.

Created Version: This is the version number of the app

Administrator Options:
Administrator Options should be used with the utmost care and preferably if one of Gear4's technical support team has directed you to this screen.

Hardware Connection Profiles:

The connection profiles determine how 'aggressively' UnityRemote will attempt to connect to your iOS device if no connection is present. The settings are Custom, Relaxed, Neutral and Aggressive. The more aggressive the setting, the more power is required.

It is strongly advised you do not change the individual settings by tapping the Custom button. Custom settings are shown in the 'Very Advanced' section of this user guide.

Hardware Connection Profiles in Admin Options
Avoid using the Custom options unless advised by GEAR4 support to do so

Auto-Off Setting

The Auto-Off setting sets the duration from which UnityRemote will turn itself off if it becomes disconnected to an iOS device.
Note: This does not mean that UnityRemote will switch itself off if you do not press a button for 120 minutes (or another value set with the slider). The auto-off setting will only kick in if there is no Bluetooth connection.

Use Connectable

iOS apps cannot initiate a connection to a Bluetooth device. The connection has to be established before the app can communicate with the hardware. To make things easier and avoid going into multiple menus, UnityRemote attempts to connect to your phone automatically at repeated intervals.

However, as UnityRemote will only attempt to connect to the last iOS device it was used with, a second iOS device will be ignored. To get around this, UnityRemote uses the 'Connectable' mode, which lets another iOS device connect to it by using the Bluetooth menu.

Example:
John uses his iPhone 4 with UnityRemote. He watches TV and during the commercials break, makes himself a coffee in the kitchen. As the kitchen is quite some distance from the lounge, the connection between UnityRemote and his iPhone is lost. While he is

away in the kitchen, UnityRemote keeps attempting to reconnect to his phone. When he walks back into the lounge, the connection is re-established, without John having to do anything.

John now leaves the house and takes his phone with him. His wife Sarah has an iPod touch and wants to watch TV using UnityRemote. As Unity will keep attempting to connect to John's iPhone, Sarah will go to the iOS Bluetooth menu and tap on the UnityRemote cell to connect to it. She now has the 'master' device and UnityRemote will attempt to reconnect to the iPod.

4.3 Gestures

Gestures can be configured for Devices and Actions to send a particular command when you swipe the screen.

Tap either an Action or a Device to access the Gesture configuration screen. The configuration screen has 6 possibilities: Up, Down, Left, Right, Tap (on the centre of the screen) , Double Tap (also on the centre of the screen).

When you tap on an arrow or the centre (or double tap for the double tap gesture) of the screen, the device and the associated command will be displayed in a black overlay. Tap the disclosure arrow to change the command.

Gesture configuration. In this screenshot, the swipe up gesture is being configured

In the key screen, pick the key you want to assign to the gesture. If “Continuously Send” is selected, a swipe movement will send multiple commands when you swipe the screen, as if you were holding down a button of your original remote control.

If you are configuring Gestures for an Action and want to change the Device (for example from the DVD player to the TV), tap on the gesture and delete it. You can then pick the corresponding device and re-create the gesture again.

4.4 Setup Assistant

The Setup Assistant is a core part of the UnityRemote application. Creating an Action is much easier with the Setup Assistant, as it will generate a complete key mapping for the onscreen remote, avoiding having to add all keys as required when you create the Action manually.

Please refer to the chapter Setup Assistant for more information on this feature.

4.5 Devices

The Devices configuration screen displays all the Devices you have setup with the UnityRemote app.

You can also manually create a new Device by tapping ‘Add new Device’.

4.5.1 Device Options

When tapping on a device, all options relating to it will be displayed:

- Type Name: You can change the type to a custom name. The type name is shown on the list in the Devices tab.
- Make Name: Lets you change the manufacturer name for this device
- Model Name: Lets you enter or change the Model name of the selected device
- Icon: This icon is displayed in the Devices tab.
- IR Codes: Lets you change the IR Codeset used to control the device. This is useful if you find that some keys are not working. The Test Selected code will send a Power toggle (on or off, depending on whether the device is powered off or on).

The Edit Device screen displays information
and configuration settings for your home electronic devices

Key Options

Configure Inputs:

Controlling the video inputs on a TV/Receiver/Amplifier/etc. is often a challenge for automated universal remote control systems.

What's an input? For example, a TV will have 5 inputs: HDMI 1, HDMI 2, HDMI 3, Composite (video, yellow connector), S-Video (black connector). Inputs are essentially the connector used to link up your TV with, say, a DVD player.

UnityRemote has two ways of controlling inputs: Discrete and Counted. Discrete support enables UnityRemote to send a command that switches your device to a specific input, such as HDMI 2. This makes it a lot easier to create an Action that involves multiple devices like a TV and a Cable box.

However, not all home electronic devices support Discrete inputs. If they do not, UnityRemote has to revert to the Counted method, which consist of first counting the number of inputs your device has, then checking what input is currently used and finally what input the device needs to be using to get a picture or sound. The Setup Assistant is the best method to efficiently count inputs.

Auto-Switching ON/OFF lets you specify whether your home electronics device switches to the correct input when the attached device is turned on. For example, if you switch

on your DVD player while watching TV and the TV automatically displays the picture coming from the DVD player, your TV is auto-switching.

Actions Overlay Colour

The overlay colour is used in Actions to help you determine what Device (TV, DVD player, etc.…) you are sending a command to when tapping a button.
You can also set the colour to none if you wish, which will display keys in the Actions on-screen remote, the same way they are displayed for individual Devices

Power Key Duration

The slider determines how long a power code should be sent when you try to turn a device on or off.
Note: Panasonic TV's require fairly long power commands. If you are using another brand and want to fine-tune your setup, you can try to lower the slider value.

Current Power State and Mute state

This determines whether your device (TV, DVD player, etc.…) is currently switched on or off (or Mute on/off). If an Action fails to launch properly, it is a good idea to check the power state UnityRemote thinks your device is in and modify accordingly if required.

Learned Keys

Displays the keys you have learned with UnityRemote and also enables you to learn a new key. Note that if you learn a key via this menu, it will need to be added to the onscreen remote control manually.

For more information on how to learn keys, please refer to the 'Learning Keys with UnityRemote' chapter.

Standard Keys Options

You can tap on a key to open the Edit Key screen.

Name: Lets you change the display name of the key on the onscreen remote.

Icon: Lets you change the icon displayed on the onscreen remote.

Continuous (ON/OFF): Lets you determine whether tapping and holding the key will send one command or multiple commands the longer it is held. If the setting is off, holding down the key will have no effect other than sending one command.

Display: Lets you choose whether to display the Key name and Icon (Text and Icon), the name only (Text) or just the Icon.

Test Key Function: Tapping the button will send the corresponding command to your device, enabling you to check if the infrared code is recognised.

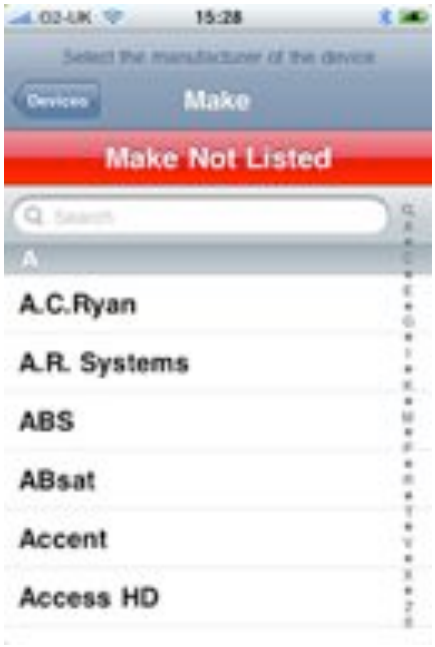
Learn for this Key: If the default key does not send an infrared code your device recognises, you can relearn it. See the chapter “Learning Keys” for more details on how to learn a key.

4.5.2 Adding a Device

Selecting the manufacturer

When tapping Adding a new device, the list of brands included in UnityRemote’s database will be displayed.

Swipe the screen from the top to the bottom to display the Search box. You can also scroll the list by swiping the screen or using the alphabet scroller located on the right side.



The manufacturer list can be searched or you can scroll through all the names

Once you have found the correct manufacturer, tap on the name to access the next screen.

If the manufacturer of your device is not listed, tap on the red 'Make not listed' button to open the learning mode.

Selecting the Device Type

Once you have selected the manufacturer, pick the correct device type in the list. If your device type is not shown in this list, you can try a similar device type (say DVD player instead of Blu-ray player). If you are not able to power your device with a similar device type, revert back to the manufacturer list and tap the 'Make not listed' button to create a completely new device.

Device type list. Pick the device closest to the device you are adding if there is no direct match

Testing a power code

Before starting the next step, ensure that UnityRemote is placed in front of the device you are trying to control. The power button should be on the opposite side of your device (meaning the side with the red LEDs is facing your device.)

Also ensure your home electronics device is in STANDBY mode before starting.

Press the next button to run through power codes.

UnityRemote sending a power code to a device

UnityRemote will match an infrared codeset to your device by sending a power toggle command. If your home electronics device switches ON, tap Yes. If it does not, keep tapping No until it does.

Should your device not power on, it will be necessary to learn the keys. Refer to the chapter 'Learning Keys'

4.6 Actions

Actions are a set of steps that enable you to switch on several devices, switch inputs, set channels and so on. 'Watch TV', 'Watch Movie' or 'Listen to Music' are all examples of Actions.

4.6.1 Editing an Action

When you have created an Action using the Setup Assistant, you can fine-tune its settings using the Configuration screen.

- Name: The name of the Action. This is selected in the Setup Assistant.
  Note: The "Watch Movie" Action covers devices like Blu-ray, DVD, Digital Media Adapters, VOD devices. If you have a DVD and a Blu-ray player, it might be a good idea to modify the name.
- Icon: The icon displayed on the UnityRemote main screen
- Display Colours (ON/OFF): Enables the use of different colour overlays for each device's buttons on the onscreen remote. For example, a TV will have blue

buttons while a DVD player will have green buttons. Turning this option OFF will make all keys the default silver colour.

- Monitor: Monitor is a generic term that covers TV's, Projectors, built-in screens, etc.… Tap on Monitor to access the Monitor & Input Options screen.

Monitor Options:

Example of a TV with Counted inputs

Device to use as a Monitor:
Defines what device is used to display the picture for the given Action

Monitor Input:

This panel will change depending on your device:

If your device supports Discrete inputs, these will be listed.
Note: Discrete support enables UnityRemote to send a command that switches your device to a specific input, such as HDMI 2. This makes it a lot easier to create an Action that involves multiple devices like a TV and a Cable box.

If your device supports automatic switching, tap this option.
Note: Auto-Switching ON/OFF lets you specify whether your home electronics device switches to the correct input when a device attached to it is turned on. For example, if you switch on your DVD player while watching TV and the TV automatically displays the picture coming from the DVD player, your TV is auto-switching.

If your device does not support Discrete inputs and does not automatically switch, UnityRemote will have to count inputs. You can change the number of inputs on the specific Device (TV, projector) configuration screen.
Monitor channel:
Some TV's need to be set to a channel to use a connected device. This is usually channel 2 or 3. You can enter the channel number using this option.

- Devices: Lets you select the devices you want to power on or power off when the Action is run. For example, if a Watch Movie action requires your cable box to be switched off, add the cable box and flick the switch to OFF.
  Note: You can reorder the devices by dragging the right side of a cell up or down.
- Wait between Power and Steps: Lets you specify a time delay between powering all devices on and starting additional steps.
- Steps: You can send commands to your devices like Play (to a DVD player) or channel number (to a TV or a receiver) after the devices are powered on.
  Note: You can reorder the steps by dragging the right side of a cell up or down.

4.6.2 Creating an Action

Tapping Create Action gives you two options: Custom and Template.
When using Template, a subset of the Setup Assistant will be launched to help you create the action. Refer to the following chapter 'Setup Assistant' for more information.
When using Custom, the complete action will be created manually. Devices, keys and steps will have to be added individually.

5. The Setup Assistant

UnityRemote supports thousands of devices, which when combined together can represent millions of different setups, all unique. To enable a smooth setup and 'help' UnityRemote determine the best configuration for your Setup, we strongly recommend you use the Setup Assistant.

When you first use UnityRemote, the Setup Assistant will launch automatically. You can also access it through Configuration > Setup Assistant.

The Setup Assistant has multiple 'branches' that will or will not be displayed, depending on the collection of devices you own and want to setup.

5.1 Naming UnityRemote

The first screen enables you to change the Device Name as it appears in the iOS Bluetooth menu and how the UnityRemote application will display it. Please note that iOS will ignore the name change in the Bluetooth menu until you pair the device again.

5.2 Devices

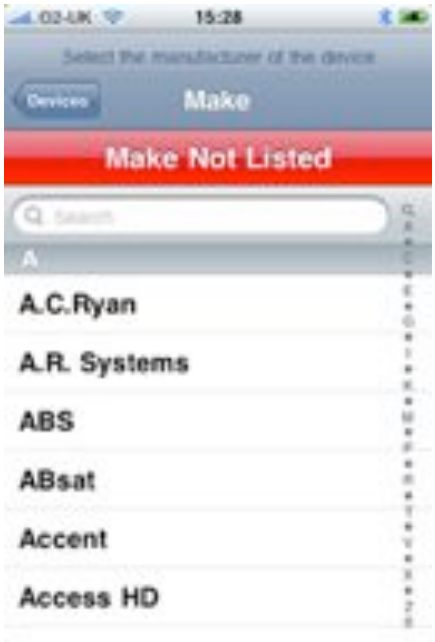
Next, the Devices screen lets you add your home electronics devices to UnityRemote's app.

Tap Add New Device to start.

Selecting the manufacturer

When tapping Adding a new device, the list of brands included in UnityRemote's database will be displayed.

Swipe the screen from the top to the bottom to display the Search box. You can also scroll the list by swiping the screen or using the alphabet scroller located on the right side.



The manufacturer list can be searched or you can scroll through the corresponding names

Once you have found the correct manufacturer, tap on the name to access the next screen.
If the manufacturer of your device is not listed, the Setup Assistant will have difficulties completing all steps. It is best to exit the Assistant and go to Configuration > Devices > Add new Device and tap “Make not listed” on the manufacturer’s list. Once you have setup the device, re-run the Setup Assistant.

Selecting the Device Type
Once you have selected the manufacturer, pick the correct device type in the list. If your device type is not shown in this list, you can try a similar device type (say DVD player instead of Blu-ray player). If you are not able to power your device with a similar device type, learn the keys.

Testing a power code
Before starting the next step, ensure that UnityRemote is placed in front of the device you are trying to control. The power button should be on the opposite side of your device (meaning the side with the red LEDs is facing your device.)
Also ensure your home electronics device is in STANDBY mode before starting.
Press the next button to run through power codes.

UnityRemote testing a power code. When setting up a device, UnityRemote sends a power code for 1.5 seconds to increase the chances of connectivity

UnityRemote will match an infrared codeset to your device by sending a power toggle command. If your home electronics device switches ON, tap Yes. If it does not, keep tapping No until it does.
Should your device not power on, it will be necessary to learn the keys

Once you have added all your devices, tap the green Next button.

5.3 Action Picker

When you have added all your devices, UnityRemote will setup Actions for you. Actions enable you to combine several devices onto a single onscreen interface. For example, if you use a cable box to watch TV, UnityRemote can setup a 'Watch TV' action that will assign volume controls to the TV and channel control to the cable box. Combining these devices on a single onscreen remote avoids you having to switch between devices when you want to control them.

The Action Picker will display Actions based on the Devices you have setup. Note that the 'Watch Movie' Action is used for DVD, Blu-ray and Digital Media Adapters.
Pick all the actions you want to setup and press Next.

The Actions Picker list is dynamically built. Depending on the devices you have added, you may see more or less options than pictured above

5.4. Receiver setup for Actions

If you have added a receiver to the list of devices, the Setup Assistant will ask you if it is used in various Actions like Watch TV and Watch DVD. A receiver is a device that routes audio and video to different home electronics devices.
Unless you have a fairly high-end home TV setup, you can safely select 'No Receiver Setup'.

5.5. Input and Channel Selection for Watch TV and Watch Movie Actions

For an Action to successfully complete at the press of one button, it is necessary to switch the video input of your TV or Projector to the port (HDMI, Video, S-Video, DVI, etc.…) your remaining equipment (DVD player, Cable Box, Satellite receiver, etc.…) is using.

For example, your TV is connected to a satellite receiver via a HDMI cable. When you launch the Watch TV action, the TV and the satellite receiver will be powered on.
The next step will be to switch the TV to the HDMI input that is used by the satellite receiver, otherwise no picture will be displayed. This is called input switching.

There is not one standard for TVs when it comes to input switching

The Input switching method panel of the Setup Assistant. Knowing how your equipment works is important to select the correct option.

5.5.1. Input automatically switches

This is the ideal method, but all TVs do not support it. When you power on the device connected to your TV, the TV will sense the change and automatically switch to the correct input, which means you don't have anything else to do but to press the power buttons.

If this behaviour is not documented, UnityRemote will require you to know how your equipment works to properly set it up. If you do not know whether your TV supports auto-switching, try the following:

- Use your original remote and switch on your TV. Set it to a random input using the input key
- Use your original remote and switch on your DVD player, satellite/cable receiver, etc…
- Check if the TV automatically switches to the input used by the device you have just powered on. If it does, it means it supports auto-switching.

If your TV supports auto-switching, select the 'Input Automatically Switches' option and press Next.

5.5.2 Specific Input Required

Some TVs require you to press an input button or, worse case scenario, cycle through inputs to find the one the connected device (DVD player, Blu-ray, Cable/Sat receiver, etc…) is using.

Identical to the previous option 'Input automatically switches', you need to know how your equipment works before you can pick the correct option.
If you do not know if your TV requires you to switch to a specific input, try the following:

- Use your original remote and switch on your TV. Set it to a random input using the input key
- Use your original remote and switch on your DVD player, satellite/cable receiver, etc…
- Check if the TV automatically switches to the input used by the device you have just powered on. If it does not, it means you have to switch to a specific input using the remote.

Discrete Inputs
If your TV is fairly recent and requires a specific input, it is likely that UnityRemote will have the discrete input keys. In this case, you will be asked to select the input to which your equipment is connected to the TV.
What are discrete input keys?

These are keys that are not found on your original remote, such as Power ON and Power OFF instead of Power Toggle, HDMI 1/2/3/4, etc.. Discrete inputs are essential to create robust Actions with UnityRemote, that will work every time, even if someone changed the power state (on or off) or input selection (HDMI, Video, DVI…) using another remote.

Counted Inputs
If there are no discrete inputs for your TV, UnityRemote will have to revert to the least desired option of counting inputs. Many efforts were made to create a robust solution, including when using several iPhones, but be aware that if someone uses the original remote of your TV to switch inputs, you will probably have to use the help system to get UnityRemote back on track.
To setup counted inputs, UnityRemote will need to know:

- How many inputs your TV has. You can use the original remote of your TV and press the input button to cycle through all inputs. Count the number of times you have to press on the button until you reach the input you started on. This will give you the total number of inputs.
- UnityRemote can also help you counting the inputs. Make sure you watch the input screen overlay that is displayed on your TV; it will often show AV 1, AV 2, S-Video and similar names.
- What input the equipment connected to the TV is using. The Show Power Panel button lets you turn devices on and off, which can help when trying to identify the correct input.

Unlike the other steps, setting up counted input can be a lengthy task. You can skip this method by selecting 'Input Automatically Switches' and then adding the TV's input key

to the Action's onscreen remote. UnityRemote will power on all your devices and run all steps correctly, all you will have to do is set the input by pressing the key.

5.5.3 Specific Channel Required

Some older TV's require you to set a specific channel, which is usually channel 2 or 3, to display the picture from a connected device (DVD player, VCR, cable box, etc…).
Select this option if your TV needs this setting.

5.5.4 Specific Channel and Input required

This setting is very rarely used. Some TV models require to be set to a specific channel (usually 2 or 3) and require a specific input to be selected. Review 5.5.2 and 5.5.3 on how to choose the correct settings.
Note that these types of TV are very likely to require the use of Counted inputs.

5.6 Delay setting

Some TVs require a longer start-up time to display a picture. Set the correct value to ensure that UnityRemote will miss no step in the action, as it may send commands before your TV is ready.

5.7 Selection of Video player or TV receiver

If you have setup a DVD/Blu-ray/Digital Media Adapter and are creating a Watch Movie action, select the correct one based on your settings in 5.5. As some TV's have an integrated DVD player or Internet TV receiver, the TV will be an option you can choose.

Note: Remember the Setup Assistant will only create one action of a certain type. If you have a Digital Media Adapter and a DVD player, create a Watch Movie Action with one of those devices first. Then, re-run the Setup Assistant to create another Watch Movie Action with the second device. Actions can be renamed in Configuration > Actions for added clarity when displayed in the list within the Unity tab.

If you are using a cable or satellite receiver, the Setup Assistant will let you select it on this screen. Pick the receiver if appropriate.

Note: As the Setup Assistant will only create one action of a certain type, you will need to re-run it if you watch TV with cable/sat box and the integrated tuner (ATSC, Freeview, TNT, DVB-T).

5.8 Movie Player and TV channel steps

Finally, when setting up a Watch Movie or Watch TV action, the Setup Assistant will enable you to start on a specific channel or play the DVD automatically.

Note: Once you have created the Action, check in Configuration > Actions > your action that Steps are enabled.

5.9 Setup Assistant completion

On the final screen of the setup assistant, you can manually adjust further settings like reassigning Gestures. These settings can also be accessed through the Configuration panel.

6. Learning Keys with UnityRemote

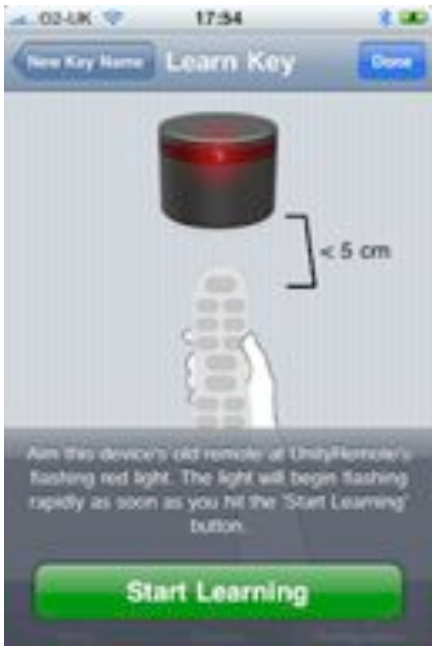
UnityRemote includes a large database of devices covering hundreds of manufacturers and thousands of devices. Sometimes, devices have regional variations or are too old to be included in the default database and learning keys will be required.

6.1 Accessing the Learn functionality

There are four ways of learning keys:

- On an onscreen remote, press the Edit button and then tap on a cell that has a + sign. Select Learn a key.
- On an onscreen remote, press the Edit button, then tap key options, tap a key. Then tap “Learn for this key”.
- In Configuration > Devices > *your device,* swipe down and tap Learn New key. Note that you will have to add the key to your onscreen remote manually.
- In Configuration > Devices > *your device,* swipe down, tap an existing key and then tap “Learn for this key”

6.2 Learning a key



To properly learn a key, it is important you follow these recommendations:

- The original remote needs to be pointed towards the flashing red LED. For best results, point slightly on the left of it (5mm)

- The original remote needs to be at the same height as the red window and red flashing LED.
- Press the button you want to learn for a short time only. Usually a short 0.5-second button press is sufficient. Pressing it for a longer time may lead to an error.

7. Finding the best position for UnityRemote

UnityRemote integrates 5x Infrared LEDs to offer a broader coverage between UnityRemote and your home electronic devices.

When you initially setup UnityRemote, it is best to keep it fairly close to your equipment to avoid lose of signal. Ideally, ensure that the multi-function button is on the opposite side of where the equipment you are trying to control is located (the red LEDs facing your equipment).

Once you have gone through the setup process, you can change the position of UnityRemote to your liking. In order to find the best position, be aware that:

- Infrared signals require 'line-of-sight'. There should not be any objects blocking the signals between UnityRemote and the device(s) you are wanting to control.

- Infrared signals do however 'bounce' off objects. As UnityRemote sends 5 commands/signals when you press a button, it means that under some conditions, line of sight is *not* required.

- It is best to place UnityRemote in the desired location and try to control each device you have setup individually, by sending one command from the Devices tab. Keep changing its position until you are able to control all devices. Usually, you will be successful at the first or second try.

- The Infrared LED located between the two red LEDs is more powerful than the other four as it also acts as a learner LED. If all your devices are located in the same area and quite far away from UnityRemote, it is best to point this LED at them.

- The maximum range of UnityRemote's infrared LED is 8 to 10 meters. When a signal bounces off an object, you still get 30% to 40% range.

- The maximum range of UnityRemote's Bluetooth link is 10+ meters.

8. UnityRemote Connection Model

8.1. Pairing

Before UnityRemote can communicate with your iOS device, it needs to be paired to it.

When you first unpack UnityRemote and power it on, it should automatically be in pairing mode, which is signalled by a slow flashing LED. If the LED does not flash, you will need to put UnityRemote into pairing mode by pressing and holding the multi-function button for 5 to 6 seconds until it starts blinking slowly.

You can now open the Bluetooth menu on your iPhone and tap on UnityRemote. A dialog box will ask you to confirm that you wish to pair the device; tap OK. No code is required to pair UnityRemote.

UnityRemote can be paired with up to 8 iPhone / iPod touch.

Note: A common misconception is that every time you want to use a Bluetooth device with your phone, you need to pair the two. Pairing is a one-time operation, which essentially allows the two devices to talk together.

8.2 How UnityRemote connects to your iOS Device

8.2.1 Last iOS Device used

Currently, iOS does not enable an app to connect to a Bluetooth accessory; the connection has to be established either through user intervention (going to the Bluetooth menu and tapping on the device) or by having the device connect to your iPhone instead.

Taking this into account, UnityRemote implements an advanced connection model to balance great user experience with efficient power management.

- When you power on UnityRemote, it will attempt to connect to the last iOS device (the master device) it was used with. You only have to press the power button, the reconnection will be completely automatic. When you pair a new device, UnityRemote will use this as the master device.

- When you walk out of range (to the kitchen to make a coffee), UnityRemote will keep trying to reconnect to your iOS device. This means that when you walk back into the room, the connection will be re-established automatically.

- UnityRemote will leave one second between each connection attempt. Progressively, the time between connection attempts will increase until it hits the maximum value. The longer you are not connected, the longer it might take for the automatic reconnection to kick in. The maximum value can be adjusted and is well under 30 seconds in any case.

- If there has not been a connection for 2 hours, UnityRemote will switch itself off. *This does not mean that if you do not press a button for 2 hours, UnityRemote will power off. This rule only applies if you switch off Bluetooth on your iPhone or walk out of range and the connection is lost.*

- You can change the auto-off setting length in the Admin Options located in Configuration > UnityRemote Devices > *your UnityRemote* > Admin Options.

- When you switch to another application using multi-tasking, iOS will interrupt the data connection to UnityRemote. The Bluetooth connection will still remain available however. When you switch back to the UnityRemote application, the data connection will be restarted automatically.

8.2.2 Using multiple iPhones with a single UnityRemote

As UnityRemote attempts to reconnect to the last iOS device it was used to speed up the connection process, switching from one iPhone/iPod to another requires a different method.

In Configuration > UnityRemote Devices > *your UnityRemote* > Admin Options, make sure that 'Use Connectable' is enabled (you can turn this option off if you're only going to use a single iPhone with your UnityRemote).

When another user wants to connect to UnityRemote (assuming his iPhone is already paired with UnityRemote), he can do so by going to iOS Settings > General > Bluetooth. Simply tap on the UnityRemote entry to connect to it.

8.2.3 Using multiple UnityRemote devices with one iPhone

iOS supports a connection to only one accessory over the Bluetooth link. It is possible to use multiple UnityRemotes, but you will need to ensure you switch the first one off before using the second.

Another method is to disable the auto-connect feature. In Configuration > UnityRemote Devices > *your UnityRemote* > Admin Options, tap on Custom and set the Reconnect Policy to 'Simple' instead of Backoff.
When doing this, to connect to UnityRemote, you will need to go to your iOS Bluetooth

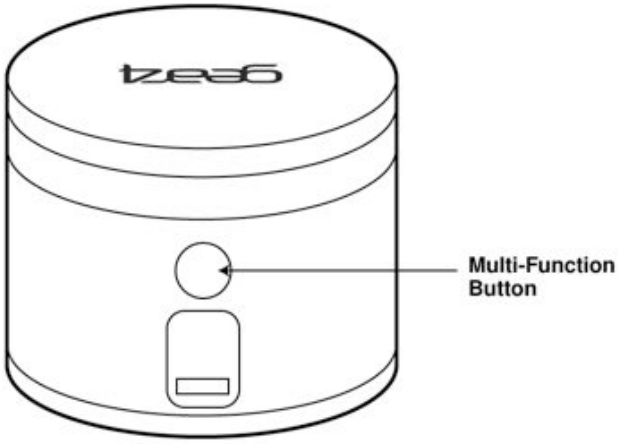
menu and tap on the relevant device. To disconnect from UnityRemote, Use Configuration > UnityRemote Devices > *your UnityRemote* > Disconnect UnityRemote.

Generally, it is not recommended to use multiple UnityRemotes until iOS allows an application to connect to a Bluetooth device.

9. UnityRemote Multi-Function Button and LEDs

9.1. Multi-function button

The button on the side of UnityRemote turns UnityRemote on/off, puts it in pairing mode, and can be used to reset UnityRemote's settings.



Turning UnityRemote On or Off

- Power on UnityRemote: Press the button for half a second. The red light will stay on for 3 seconds to indicate UnityRemote powered up normally.
- Power off UnityRemote: Press the button for half a second when UnityRemote is powered on and release the button. The 3 quick flashes mean the device is powering off.

Pairing UnityRemote

- Put UnityRemote into Pairing: Press and hold the button for about 5 seconds until the red light starts flashing slowly. This will put UnityRemote into pairing mode, letting you add more iPhones to the list of devices UnityRemote can work with.

Reset UnityRemote

- Clear all settings: Press and hold the button for about 15 seconds until UnityRemote's red light flashes quickly.

9.2. LEDs

UnityRemote has 2 LEDs located on the opposite side of the Multi-function button.

When viewed from the front, the LED located on the right is the infrared activity indicator. It will light up every time UnityRemote sends an infrared command.

The LED located on the left side is the Bluetooth and activity LED. It is used to indicate the unit has been powered up, is switching off or is being cleared.

Note that when UnityRemote is switched on, no LEDs are used to indicate the state.

9.3. Micro USB port

UnityRemote features a micro-USB port located below the multi-function button. This port is only used for firmware upgrades.