

User Manual



Logitech®
Harmony® 650 Remote

Version 1.0

Logitech®
Harmony®
650 Remote

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Introduction

The Logitech Harmony 650 Universal Remote is your answer to effortless home entertainment. The Activities buttons puts you in control of all your devices. You can go from watching TV to watching a DVD to listening to music with the touch of a button. The guided online setup walks you through the step-by-step configuration of your Harmony 650 with your entertainment system and then you'll be ready to sit back and enjoy!

Whether you're new to Harmony products or you consider yourself an expert, this User Manual provides you with useful information to get you going.

Getting to know your remote

How your Harmony 650 works

The Harmony 650 is an Activity-based infrared (IR) universal remote control. Using the Harmony Remote Software, you can configure the Harmony 650 to control up to 5 devices.

The Harmony 650 delivers powerful Activity-based control by using Smart State Technology®. This technology allows the Harmony 650 to keep track of the devices it controls, so it always knows which of your devices are on. Using Smart State Technology®, the Harmony 650 switches effortlessly from watching a DVD to listening to music on the sound system with the touch of a button.

Activities, devices, and inputs

Activities are the basis for how the Harmony 650 works. Things like watching a DVD, listening to radio, playing a game are all examples of Activities you can set up for your remote using the Harmony Remote Software.

When you select an Activity, your Harmony 650 sends a series of commands to your entertainment system to turn on the necessary devices and configure them for the selected Activity. After you select an Activity, your Harmony 650 assigns the buttons on your remote so they control the proper devices and the screen displays other commands for that Activity.

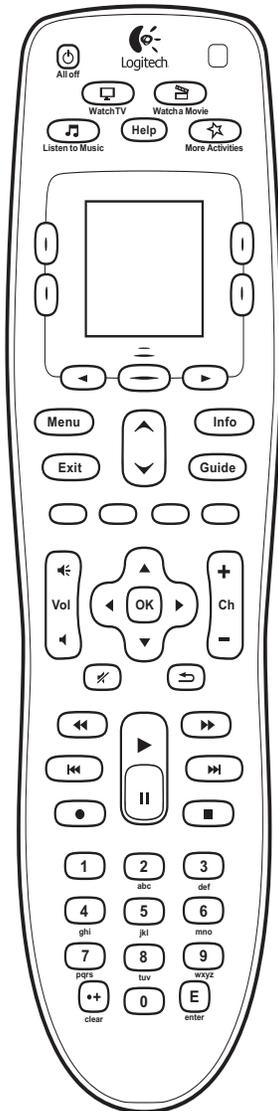
For information on how to select an Activity, or how to switch between Activities, see [Selecting an Activity](#).

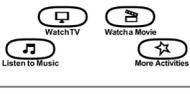
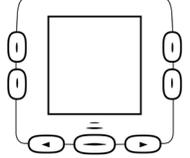
Devices are the components of your entertainment system. They're things like your TV, cable box, DVD player, or game console.

Inputs are how your devices are connected. For example, if your DVD player is connected to your TV using the *Video 1* input, then the TV needs to be set to *Video 1* to display the DVD picture properly.

The buttons on your Harmony 650

The Harmony 650's buttons may have different functions or control different devices depending on which Activity you're in. For more information, see [Changing how buttons work in an Activity](#).



 <p>All off</p>	<p>The All Off button turns off all the devices in the current Activity.</p>
	<p>The Activity buttons start the appropriate Activity. The More Activities button opens a list of all Activities on the remote screen.</p>
 <p>Help</p>	<p>The Help button starts the on-remote help. For more information, see Getting help with your Harmony 650.</p>
	<p>The arrow buttons below the screen allow you to move through various options on the remote screen. The center button below the remote screen and the side buttons beside the screen let you choose those options.</p>
 <p>Menu</p>	<p>The Menu button opens the menu on the screen of the device selected.</p>
 <p>Exit</p>	<p>The Exit button closes the menu or guide on the screen of the device selected.</p>
 <p>Info</p>	<p>The Info button opens the information section of the guide on the screen of the device selected.</p>
 <p>Guide</p>	<p>The Guide button opens the guide on the screen of the device selected.</p>
	<p>The page up and page down arrows help you navigate through the guide or menu on the screen of the device selected.</p>
	<p>The color-coded buttons perform cable, satellite and teletext functions. You can also customize them with your favorite commands.</p>
 <p>Vol</p>	<p>The volume button changes the volume for the device selected.</p>
	<p>The directional pad arrows allow you to move through menus or on-screen guides.</p>
 <p>Ch</p>	<p>The channel button changes the channels.</p>
	<p>The mute button mutes the sound.</p>
	<p>The previous channel buttons returns you to the last channel you were on.</p>
	<p>The play area puts your play, pause, skip and other buttons in one area for quick access.</p>
	<p>The number pad has the digits 0-9.</p>
 <p>enter</p>	<p>The enter button enters a selection from the number pad.</p>
 <p>clear</p>	<p>The clear button clears an entry from the number pad. It is also used to select HD channels.</p>

What's on the Harmony 650's screen

Activities

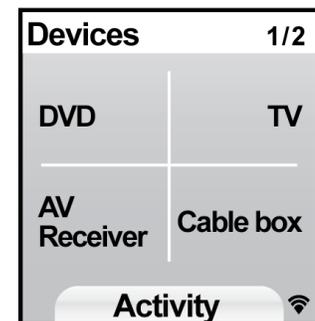
When you press an Activity button -- **Watch TV**, **Watch a Movie**, or **Listen to Music** -- the Activity starts and the commands for that Activity appear on the screen. The commands that appear are related to the Activity, and apply to all of the devices that you use for that Activity. For example, if you're watching a DVD, your remote screen displays functions and commands for your DVD and other devices you use in the Watch a DVD Activity.



When you press the **More Activities** button, the remote screen shows all Activities you have defined, starting with the custom ones.

Devices

When you are viewing Activities on your remote's screen, you select devices by pressing the center button below **Devices**. The Harmony 650's screen displays a list of your devices. From this screen, you can select individual devices and select commands for each device.



Favorite channels

You can set up your favorite channels on your Harmony 650 so that you have quick access to the channels you watch the most. You can also add your own icons to customize the screen for your favorite channels.



IR Status Indicator

The status indicator flashes whenever an IR command is being sent from your Harmony 650.

Page numbers

The current page of options and the total number of pages appears in the upper right corner of the remote screen.

Using your Harmony 650

Using your screen features

The arrow buttons help you move through each page of options, while the side buttons allows you to choose a command or function. The center button lets you choose devices or Activities, or lets you back out of pages.

The upper right corner of the screen shows which page is being shown, and how many total pages there are for the options you are viewing.



Selecting an Activity

The Activity buttons are assigned to the Activities you have created for the remote. You can start an Activity by pressing the appropriate button or by pressing the **More Activities** button and selecting one of the Activities that appears on the remote's screen.



Switching between Activities

To select a new Activity, press the appropriate button or use the More Activities button to choose another Activity to enjoy.

The Harmony 650 will take care of powering on the needed devices, and powering off the ones not needed.

Turning off your devices

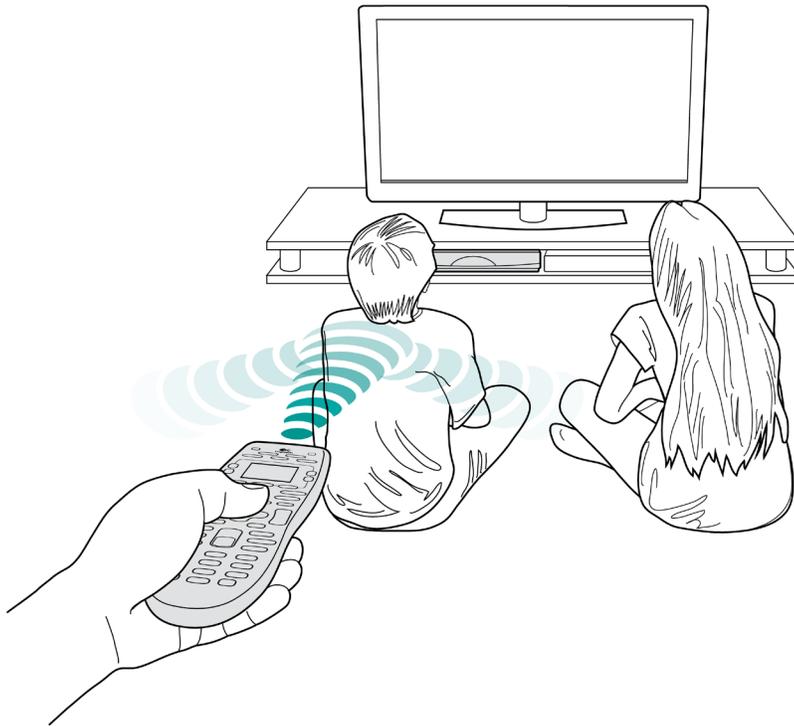
Press the All Off button to power off all the devices used in the Activity.



You don't need to press the system off button when switching between Activities. The Harmony 650 ensures the proper devices for the Activity are On or Off.

Using the **Help** button

Because obstacles or distance can interfere with the signals the Harmony 650 sends when it starts an Activity (for example, someone walks between your Harmony 650 and the TV when you press **Watch TV**, or you're very far away from the system when you start an Activity), your Harmony 650 can become "out of sync" with your devices.



To fix the problem, use the help feature on your Harmony 650.

1. On the remote, press the **Help** button.
2. Answer the questions and follow the instructions on the Harmony 650's screen. The Harmony 650 re-sends commands to make your remote "in sync" with your devices.
3. To access advanced help features, press and hold the **Help** button for 5 seconds. For more information, see [Types of delays or speed settings](#).

If you have used the help feature to fix the problem several times in the past, the help feature may ask you some questions to help fix the problem permanently. When you're done with this process, the Harmony 650 will be "in sync" with your devices.



Before using the **Help** button, be sure you've addressed the cause of the problem (for example, remove any obstacles from the line of sight).

Using your favorite channels

To set up your favorite channels, go to the Harmony Remote Software:

1. Select the **Activities** tab.
2. Under **Watch TV**, click **Settings**.
3. Select **Set up Favorite Channels** and follow the online instructions.

When you have favorite channels set up on your Harmony 650, your favorites appear on the remote's screen when you select the **Watch TV** Activity.

To use your favorite channels:

1. Press the **Watch TV** button.
2. The favorite channels you've added appear on your remote's screen.
3. To select a channel, simply press the side button associated with the channel.
4. The TV goes to the channel selected.

Controlling your devices individually

In some cases, you may want to control a device individually. You can use the device feature of the Harmony 650 to control devices one-by-one.

When you are in an Activity or on the More Activities screen, pressing the center button shows you a list of your devices. Using the arrow buttons and side buttons, select the device you want to control. The Harmony 650 screen shows the commands for that device. Select the desired command.

Once you've finished, press the center button to return to Activities for the optimal control of your entertainment system.

Setting the backlight timing

The Harmony 650 senses when you pick it up, and lights up the display and buttons.

To set the length of time the backlight stays on, follow these steps:

From your Harmony Remote Software:

1. Select the **Remote Settings** tab.
2. Click **Display Settings**.
3. Next to Glow Timing, select the number of seconds before the backlight turns off automatically, and click **Save**.

Setting up your Harmony 650 for the first time

Overview of the setup process

The Harmony Remote Software leads you through a setup process and allows you to change your setup later if you wish.

To begin, connect your remote to your computer using the USB cable provided and go to www.logitech.com/myharmony. Follow the instructions to download the Harmony Remote Software. After the software installs, start the Harmony Remote Software. When you start the Harmony Remote Software, it checks for updates automatically and downloads them if necessary.

After you install the Harmony Remote Software and gather your device information using the Device Worksheet, the setup process guides you through five steps in which you answer a series of questions about how your entertainment system is set up.

1. *Creating your user account:* The setup walks you through creating a user account on the Harmony Remote Software. You can also launch a tutorial about how to set up the Harmony 650 from this step by clicking **View Tutorial**.
2. *Connecting your Harmony 650 to your computer:* The software ensures that your computer and Harmony 650 are communicating with each other.
3. *Setting up the devices you want to control:* The software walks you through entering the manufacturer and model numbers of your entertainment system that you collected using the [Device Worksheet](#).
4. *Setting up Activities for the Harmony 650:* The software asks you questions about how your entertainment system is set up, and then saves the settings.
5. *Updating the remote:* The software transfers the information from your computer to the remote.

For more information on installing the Harmony Remote Software, refer to the Quick-start Guide that came with your Harmony remote.

Gathering your device information



To simplify the setup process, we recommend you fill out the [Device Worksheet](#), so that all the device information is at hand when you need it.

Locating manufacturer and model number on your devices

Manufacturer names and model numbers are typically found at the front of a device, on a label on the back of the device, or in the User Manual for that device.

1. Creating your user account

When you start the Harmony Remote Software for the first time, you must create your user account.

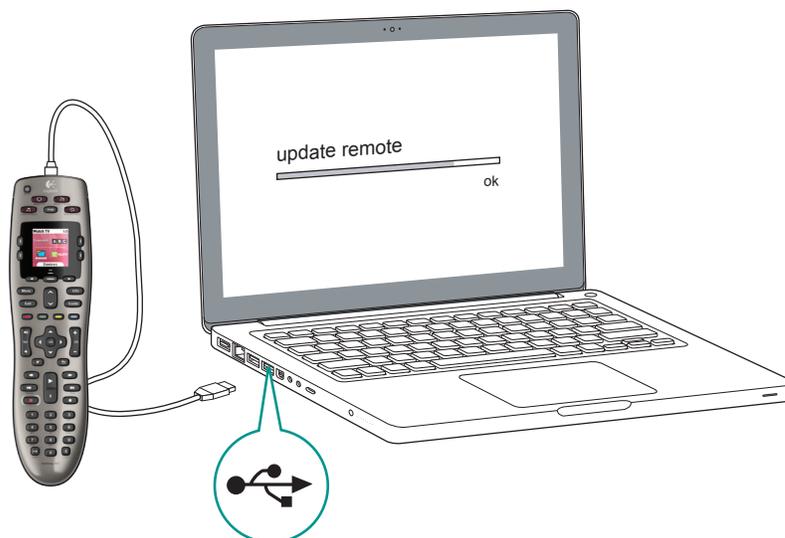
From the Harmony Remote Software, on the Getting Started page:

1. Click **Create New Account**.
2. Complete the required account information.
3. Follow the instructions in the setup wizard.

2. Connecting your Harmony 650 to your computer

To connect your Harmony 650 to your PC, use the USB cable provided.

1. Connect the smaller end of the cable to the USB port on your remote.
2. Connect the wider end of the USB cable to a USB port on your computer.
3. On the Check Connection page, the software confirms that the Harmony 650 is communicating with your computer.



3. Setting up the devices you want to control

On the Add Devices page, the guided online setup asks you to enter your device information. Enter the information for all the entertainment components you want to control with your Harmony 650. You should use the [Device Worksheet](#) to gather all your device information before starting the setup process.

1. Select the Device type for each of your devices.
2. Select the Manufacturer for each device.
3. Enter the Model number for each device.



Adding new devices at a later time

If you want to add newly acquired devices after the initial setup, see [Adding and changing your devices](#).

4. Setting up Activities for your Harmony 650

To set up Activities, you use the Add Activities page to enter the information related to the Activities you will be using on your Harmony 650. The Harmony Remote Software shows you a selection of recommended Activities based on the device information you provided.

When you set up Activities, the software asks questions about the function of each device. For example, if you set up the Watch TV Activity, you're asked which device changes the channels (TV or satellite/cable box). If you only have one device that is capable of doing something, then the software skips the question. For example, if you only have one TV, the software doesn't ask you which device displays video.

If the device has more than one input, the software asks you which input the device needs to be set. If you're not sure which input a device uses, see [Determining your inputs](#) for more information.



Activities are the basis for how the Harmony 650 works. With Activities, the Harmony 650 eliminates the need to use multiple remotes for simple tasks. Just select the Activity and the Harmony 650 does the rest. For more information on Activities, see [Adding and changing Activities](#).

5. Updating the remote

After you enter your device and Activity information, the software saves your information and shows the Finish Setup page. It also transfers the information to your Harmony 650. After the software updates your remote, you're ready to test your setup. For specific details about testing your setup, see the chapter on [Testing your Setup](#).

Testing your setup

Every time you update your Harmony 650, you should test your remote to ensure it's working the way you expect. This chapter gives you the information you need to test your remote. It also has some suggestions on what to check while you're testing your setup.

If you run into specific issues while testing your remote, refer to the [Troubleshooting](#) section of this manual for suggestions and possible fixes for your problems.

The process of testing your Harmony 650 is straightforward. It involves simply trying the Activities you use most often and then using the on-remote help to correct any issues.

In some cases, you may need to return to the Harmony Remote Software to make changes to your remote's setup to ensure the remote is working the way you want.

To begin testing your remote:

1. Disconnect the USB cable from your remote.
If this is the first time you've updated your remote, the Harmony 650's tutorial will start on the remote's screen.
2. Ensure all the devices in your entertainment system are turned off.
3. If you are viewing the tutorial, follow the instructions displayed on the remote's screen.
4. Go to your entertainment system and try each of your Activities.
For tips on what to look for when starting an Activity, or switching between Activities, see the tips in this chapter.
5. If an Activity doesn't start correctly, press the **Help** button on the remote and the on-remote help will get you back "in sync". After you finish testing your Activities, be sure to re-test any for which you had to use the Help.

Testing your setup -- Starting an Activity

Look for these things in particular:

- Did all of your devices for that Activity turn on?
- Do you hear the correct sound?
- If the Activity includes your TV, do you see the correct picture?



Testing your setup -- Switching between Activities

Look for these things in particular:

- Are all devices needed for this new Activity on?
- Did devices not needed for this Activity turn off?
- Do you hear the correct Sound?
- If the Activity includes your TV, do you see the correct picture?

Changing your setup

Whether you get a new device or want to change the behavior of some buttons, you may need to make changes to your Harmony 650's setup. The following sections provide you with the information to help you with these tasks.

Adding and changing your Activities

In the Harmony Remote Software, select the **Activities** tab.

- To add an Activity, click **Add Activity**.
- To remove an Activity, click the  icon for the Activity you want to remove.
- To modify the settings for an Activity, click the **Settings** button for the Activity you want to modify.

Renaming an Activity

In some cases, you may want to rename an Activity. You can rename any Activity using the Harmony Remote Software.

To rename an Activity, go to the Harmony Remote Software:

1. Click the **Activities** tab.
2. In the Activity you want to rename, click **Settings**.
3. Select **Rename <current Activity name>**.

Adding and changing your devices

To add or change a device in your Harmony 650's set up, use the Harmony Remote Software and select the **Devices** tab.

- To add a device, click **Add Device**.
- To remove a device, click the  icon for the device you want to remove.
- To modify the settings for a device, click the **Settings** button for the device you want to modify.



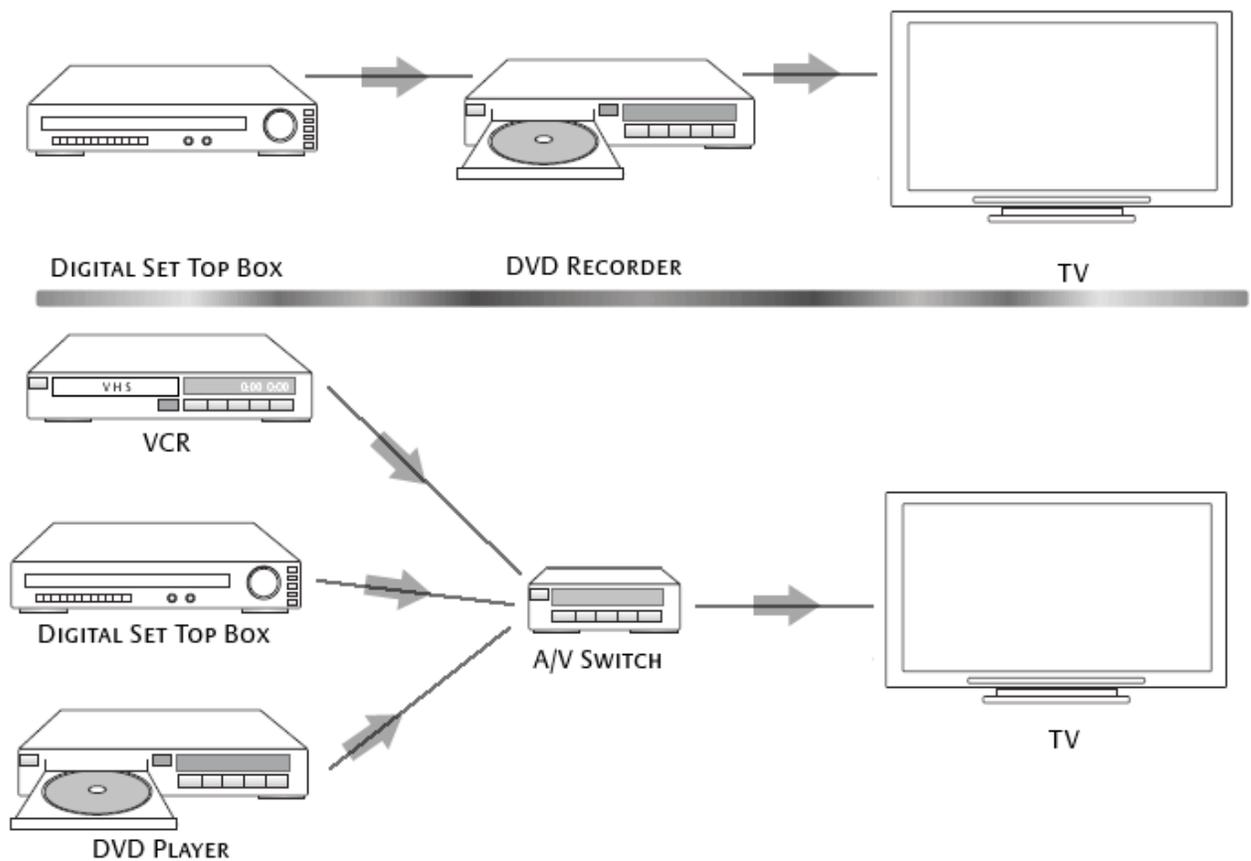
If you delete a device, any Activities using this device will be affected. On the Activities tab, click **Set Up Now** beside the affected Activities to change them.

Adding an extra device (passthrough) to an Activity

A passthrough device is a device that you add to your system that a signal passes through unaltered.

For example, if you use your DVD recorder (or VCR) to record shows from your satellite or set top box, you may need to add your DVD recorder as a passthrough device.

In these examples, the DVD Recorder and the A/V Switch are used as passthrough devices.



To add an extra Device (Passthrough) to an Activity, go to your home page:

1. Click the **Activities** tab.
2. Click **Settings** for the appropriate Activity.
3. Select **Review the settings for this Activity**, and click **Next**.
4. Select **Yes, but I want to add more control of options and devices for this Activity**, and click **Next**.
5. Follow the online instructions to complete the setup.

Changing how buttons work in an Activity

When you select an Activity, your Harmony 650 turns on all the required entertainment devices, sets up the device inputs correctly, and sets up the remote's buttons to control the devices in the Activity. For example, when you select the Watch TV Activity, the volume button on the Harmony 650 changes the volume on the device you use to control volume.

However, there may be some commands you want to add to buttons or display on the remote's screen. For example, your TV might have a picture-in-picture feature that you would like to make available on the remote. Using the Harmony Remote Software, you can add or customize how buttons work in any Activity quickly and easily.

From the Harmony Remote Software:

1. Click the **Activities** tab.
2. In the Activity in which you want to change a button, click **Customize Buttons**.
3. Follow the online instructions.

Changing how buttons work for a device

You can also add or customize how buttons work for a specific device.

To customize buttons for a device, from the Harmony Remote Software:

1. Click the **Devices** tab.
2. For the device for which you want to customize a button, click **Settings**.
3. Under Device Options, select **Customize Buttons**, and then click **Next**.
4. Follow the online instructions.

Changing how Activity buttons work on your remote

If you want an Activity button on your Harmony 650 to start a different Activity, you can customize the commands that are mapped to your buttons.

To customize what you want the Activity buttons on your remote to do, from the Harmony Remote Software:

1. Click the **Activities** tab.
2. For the Activity for which you want to customize a button, click **Customize Activity Buttons**.
3. Follow the online instructions.

Controlling the Remote Assistant

The Harmony 650's Remote Assistant guides you through starting Activities. It also gives you more information about the status of your remote and the Activity you selected.

For example, when you select the Watch TV Activity, the Remote Assistant asks you if the TV is on and if the other devices in the Activity are configured properly.

You can turn this feature on or off from the Harmony Remote Software or from the remote. The Remote Assistant can be turned off permanently only by using the Harmony Remote Software.

To permanently turn the Remote Assistant off, from the Harmony Remote Software:

1. Click the **Remote Settings** tab.
2. Click **Display Settings**.
3. Follow the instructions online.

To temporarily turn the Remote Assistant off, from your Harmony 650, when Remote the Assistant appears, press the button beside **Turn off Assistant**.

Adding additional features to your Harmony 650

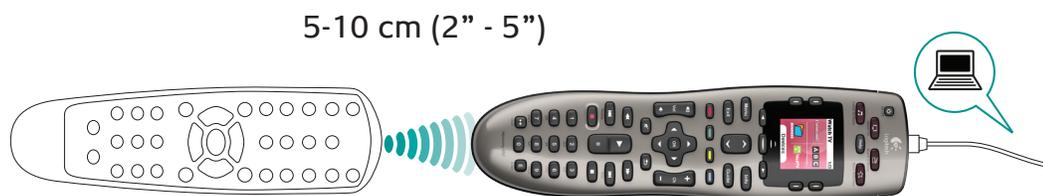
It's possible that a device's commands are not recognized. Maybe you have a very rare device? Or a new one? Although we update our device list regularly, there are always new devices in the market. To remedy this, you can teach your Harmony how to control this device by using the device's original remote.

Teaching your Harmony 650 new commands using your old remote

With the Learn IR feature of the Harmony 650 and the Harmony Remote Software, you can use your device's original remote to "teach" your Harmony 650. You should only need to use this feature when Logitech's device list doesn't have your device listed, or there's a button you want to use that's missing from the device configuration.

To use the Harmony 650's learning feature, go to the Harmony Remote Software.

1. Select the **Devices** tab.
2. Click **Learn IR** located next to the device you want to control.
3. Follow the online instructions.



Naming a new command your remote learned

When you teach your Harmony a new command, you need to give the command a name. This way, you can refer to the command by name in various locations in the Harmony Remote Software.

Logitech recommends you use the default names listed on the Learn IR page. By using the default names, you minimize the chance of a button being assigned incorrectly on the Harmony 650.

Naming conventions

When naming a command for which there is no default name on the Learn IR page, use the following naming conventions to make button assignment easier:

- Don't use spaces or special characters such as /, & or * in the name.
- Capitalize the start of words (for example, **NextDisc**, **ModeDigital**).
- Start the command name with its main function (for example, **VolumeRearUp**, **VolumeRearDown**, **VolumeFrontUp**). This helps group related commands in lists.

- Start infrared commands that select inputs (for example, on a stereo receiver) with the prefix “Input”.
- Don’t name the input based on what you’ve connected to your device, rather name it based on what it’s called on the front of the device, or on the remote control (for example, ***InputAux, InputVideo1, InputTape, InputDVD***).

Adjusting delays and speed settings on your Harmony remote

If your device doesn’t react to a command from the Harmony 650, it may be because the delay setting needs to be adjusted. By default, different devices take different amounts of time to react to a command from a remote control. To accommodate these differences in your devices, the Harmony 650 uses several types of delays, or speed settings, to control your devices. You can change the first three types of delays using the Harmony Remote Software: Power On Delay, Inter-key Delay, and Input Delay. You use the Help button on your Harmony remote to change the Inter-Device Delay.

Power On Delay

The Power On Delay is the amount of time that a device needs to “warm up” before receiving another command. For instance, when you turned on a device, you may notice that the device needs a certain amount of time before it can receive another command from the remote.

Example: Every time I turn on my system with an Activity, my TV powers on but doesn’t go to the correct input. However, it does go to the correct input when switching between Activities when the TV is already on. The **Help** button fixes it each time, but I don’t want to use the **Help** button every time.

Inter-key Delay

The Inter-Key Delay is the amount of time allotted for commands to be sent between button presses.

Example: Any time I press volume up multiple times in a row, for my AV Receiver it takes a long time to increase the volume. I would like my devices to respond quicker to these presses.

Input Delay

The Input Delay is the amount of time that the remote takes when switching between inputs. Many devices need a certain amount of time before changing to the next input in the input list.

Example: My TV doesn’t always go to the correct input when switching between Activities and I have already verified that the input list is correct.

To adjust the Power On Delay, Inter-key Delay or the Input Delay, from the Harmony Remote Software:

1. Click the **Devices** tab.
2. Select the device for which you want to apply the change and click **Settings**.
3. Select **Adjust the delays (speed settings)**.
4. Click **Next**.
5. Follow the online instructions.

Inter-Device Delay

The Inter-Device Delay is the amount of time between commands for different devices when you start an Activity. The Inter-Device Delay is also the time between the next sequence of commands that are sent to other devices within an Activity.

Example: My DVD player doesn't always turn on when I start the Activity. I can get the DVD player to turn on by using the **Help** button however I don't want to use **Help** every time.

To adjust the Inter-Device Delay:

1. Press and hold the **Help** button on your remote for 5 seconds.
2. When prompted, confirm that you want to enter advanced delay mode by selecting **Yes**.
3. Select the device you want to adjust the delay for.
4. Select **Change Delay**.
5. Select **Inter Device Delay**.
6. Adjust the inter device delay by selecting "+" to increase or "-" to decrease.
7. When you are finished, select **Done**.

Repeats

The Repeats are the number of times the remote repeats a command for a device to properly respond to the command. For instance, many devices need longer or shorter command repetitions to respond properly.

Example: Any time I press channel up, my Digital Set Top Box skips two channels at a time.

To adjust the Repeats, from the Harmony Remote Software:

1. Click **Troubleshoot** at the top of the Harmony Remote Software window.
2. Select the device you want to adjust repeats for, and click **Next**.
3. Select Device responds to some commands either too many times or only occasionally and click **Next**.
4. Adjust the repeats by selecting a higher or lower number, and click **SAVE**.

Maintaining your Harmony 650

Upgrading your Harmony 650 firmware

Your Harmony 650 contains internal software, called firmware. The remote's firmware is similar to your computer's operating system.

Logitech updates the firmware for your remote to ensure you're always getting the most from your Harmony 650. Generally, when you connect your remote to your computer the Harmony Remote Software updates your remote automatically if new firmware is available.

However, sometimes you may need to update the firmware manually.

To upgrade your Harmony 650 firmware:

1. Start the Harmony Remote Software.
2. Connect your Harmony to your computer using the USB cable.
3. Click **Downloads**.
4. Click **Firmware**.
5. Follow the online instructions.

Testing your remote settings after a software upgrade

After you finish making any changes to your Harmony 650's configuration, you should test the new set up to ensure everything is working the way you expect. This testing process is the same as the you did when you set up your Harmony 650 for the first time. For more detailed information, see [Testing your setup](#).

Upgrading to a new Harmony remote

When you upgrade to a newer model Harmony, you can transfer the configuration from your old remote to your new remote.

To upgrade to a new model Harmony remote:

1. Start the Harmony Remote Software.
2. Click **Remote Settings**.
3. Click **Manage Remotes**.
4. Click **Replace**.
5. Follow the online instructions.

Troubleshooting problems with your Harmony 650

In this section, you'll find some commonly reported issues and the suggested solutions. These solutions may help you fix problems you're experiencing. If you still cannot fix the problem, refer to [Getting help with your Harmony 650](#).



The TV doesn't turn on when starting an Activity, but using the Help button on the remote fixes the issue.

- Try increasing the [Inter-Device Delay](#) for your television. Sometimes commands are sent too close together for different devices and need to be spaced out more.



The TV doesn't go to the right input when starting Activities.

- Using the Harmony Remote Software, check your Activity to ensure the Activity is set up to use the correct input your TV needs to be set on to get a picture. Next, check that the inputs are in the correct order for the Harmony 650 to know how to cycle through each input. If you're still experiencing trouble, try raising the [Inter-Device and Input Delays](#) for your TV.



When pressing buttons in an Activity, the remote sends the command twice.

- Try lowering the repeats for the device that is receiving the command. You can do this by using the troubleshoot option in the Harmony Remote Software.



When you try to add a new TV to your account, you get a message informing you that you haven't entered the correct model number.

- The model number for most devices can be found on the front of the device. If it isn't there, it can be found on a label on the back or bottom of the device. The model number shouldn't be confused with the serial number or the model number of the device's remote control, as many different devices by a manufacturer can share the same remote.



The On Demand command isn't on the Harmony 650 for the Watch TV Activity.

- You can map the command to any unused button on the Harmony 650 or on the remote's screen. The command is likely in our database, but wasn't mapped to the Activity. If we're missing the command, the Harmony 650 can learn it from your original remote. For more information, see [Teaching your Harmony 650 new commands using your old remote](#).



The Harmony Remote software is unable to communicate with the Harmony 650.

- Try disabling any Internet security software you might have including firewalls and anti-virus software.

Figuring out which inputs your system uses

One of the most important parts to creating your Activities for your Harmony 650 is determining which inputs your system uses for each device. This chapter gives you some suggestions on how to figure out which inputs your entertainment system uses if you're not sure.

Inputs are how the devices in your entertainment system are connected. For example, your DVD or cable box is connected to your TV through an input. If you use an AV Receiver to control the sound on your devices, for example if you have a home theater system, this chapter will also help you figure out the inputs for your audio connections.

After you know how your devices are connected, you can use the information to create your Activities using the Harmony Remote Software.

Figuring out which type of input control you have

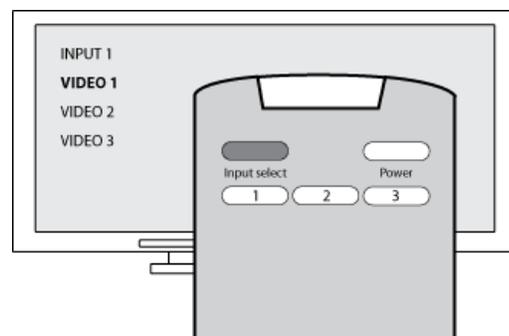
The first step in determining which inputs you have is to figure out how you use your device's original remote to change inputs. In general, there are four possibilities and each one is described in this section. To figure out which option your TV or AV Receiver uses, look at your device's original remote and see which option fits.

Option 1 — One source button

In this case, your remote has only one source or input select button.

When you press the source button, your device switches to the next input and the label appears on your TV screen.

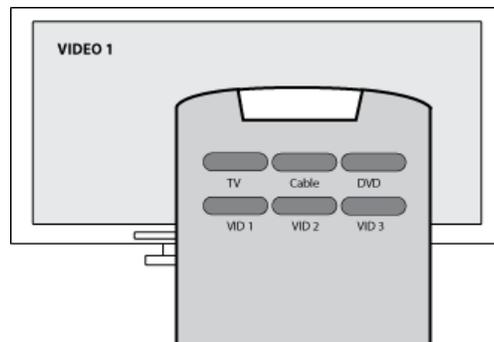
Each time you press the source button, the device switches to a new source until you get back to where you started.



Option 2 — Several source buttons

In this case, your device's original remote has several source buttons — one for each input. For example, you may have buttons labeled TV, Cable, DVD, VIDEO 1, or S-VIDEO.

When you press one of the source buttons, the device switches to the source you selected and the label appears on your TV screen.

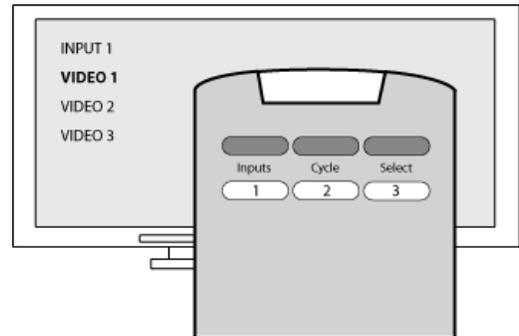


Option 3 — Select the input from an on-screen menu

In this case, your device uses an on-screen menu from which you can select the input you want.

When you press the source button, the menu appears on your TV screen. Then, you use another button on the remote to choose the input you want, and then a third button to select the input.

For example, you press the source button to display the on-screen menu, the arrow keys to select an input, and then the **OK** button enter your selection.

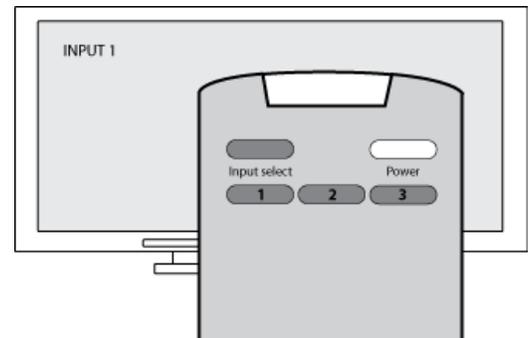


Option 4 — Select the source from a list

In this case, your device has a list of inputs and you can use the buttons on the remote to select the input you want from the list.

After you press the source button, you have to press another button on the remote that selects the input you want.

In this option, there's no menu from which to choose (Option 3) and you don't have to cycle through all inputs to get to the one you want (Option 1).



Step 1 — Turn on all your devices

To determine which devices are using which inputs, you should start by turning on all the devices in your entertainment system.

If possible, you should even start something playing in your DVD player, CD player, VCR, etc.

By having all your devices on, it's easier to see how they're connected.

It's also handy to have some paper and a pen so you can note which devices are connected to which inputs.

Step 2 — Watch the TV

In this step, you must use your TV's original remote control to switch between inputs.

1. Using your TV's original remote, select each input one-at-a-time.
2. For each input, note which device appears to be connected to that input.
For example, if you switch to VIDEO 1 and see your DVD playing, you know your DVD player is connected to VIDEO 1.
3. Repeat step 2 for each input.

Step 3 — Listen to the sound

You need to complete this step only if you have a separate device (called an AV Receiver) that manages the sound for your entertainment system. For example, you have a home theater system or connect your TV to your stereo so the sound comes out of your stereo speakers.

You must use your AV Receiver's original remote control to switch between inputs.

1. Using your AV Receiver's original remote, select each input one-at-a-time.
2. For each input, note which device appears to be connected to that input.
For example, if you switch to OPTICAL 1 and hear the sound from your DVD playing, you know your DVD player is connected to OPTICAL 1.
3. Repeat step 2 for each input.

Getting help with your Harmony 650

Contacting Customer Support

If you're experiencing problems and can't find the solution, our courteous and expert professionals can assist!

From your home page, click the **Support** button located in the *Tip Center* and then select the **Contact Us** tab.

Finding answers to questions

You can access our online help to search for topics or Frequently Asked Questions (FAQs).

From your home page, click the **Support** button located in the *Tip Center*.

Getting help with your online setup

You have access to several online features that help guide you through the online setup and customization of your Harmony 650:

Harmony Remote Software	Provides instructional help to guide you through a series of question-and-answer steps to accomplish a task.
FAQs (Frequently Asked Questions)	A searchable list of customer questions with answers provided by the Harmony 650's support center.
Support button	Provides specific online help for the page you're on.

Using the On-Remote Help

When one or more of your devices don't power on or off, or when they don't switch inputs correctly, you can use the **Help** button on the remote for simple troubleshooting. Answer the questions on your Harmony 650 to re-synchronize it with your entertainment system. See [Using the Help button](#).

Logitech's Harmony Remote user forums

You can also access the user forums to see what other users like you're discussing. Simply go to <http://forums.logitech.com/>.

Getting Started



Add Devices

Create Activities

Finish Setup

In the **Add Devices** step of the setup software, you will need to enter information about the components in your entertainment system. Fill out this worksheet to use as your guide.

List the entertainment components below that you would like your new remote to control.

Device Type	Manufacturer	Model Number
example: DVD Player	example: Pioneer	example: DV-414

Tips for identifying Device Type:

- a general category description
- examples: Television, VCR, CD Player, DVD Player, Stereo Receiver, Amplifier, Game Console, etc.

Tips for identifying Manufacturer:

- also referred to as “make” or “brand name”
- typically on the front of the component
- sometimes on the label with the Model Number
- examples: Sony®, Phillips®, Denon®, DirecTV®, TiVo®, etc.

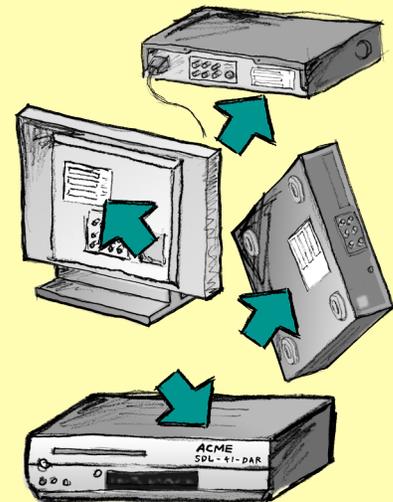
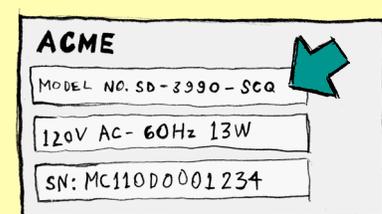
Tips for identifying Model Number:

- also “Model” or “M/N”
- usually on a label on the front, back or bottom of the component (see the Tip Center)
- model number may be different than model name
- also found in the component’s user manual
- NOT model number on the old remote control
- NOT serial number (SN) which is usually much longer
- examples: RC-QN3BK, CT-36XF36C, Explorer 3100, L32 HDTV 10A, etc.

Tip Center

How to Find Model Numbers

On most entertainment components, the model number is usually found on a label located on the front, back or bottom.



If you cannot find the model number on the component itself, the user manual that came with your component should list the manufacturer and model number.

Once you have gathered all of your information, take this worksheet to your computer and continue with the Setup software.

Appendix B - Glossary

Amplifier	A stereo component that outputs to speakers, and increases the gain or level of an audio signal. An amplifier doesn't typically include a radio.
Anamorphic views	Also referred to as Enhanced for Widescreen, or Enhanced for 16:9. The process that horizontally shrinks a 16:9 image into a 4:3 space to convert images between widescreen and typical television image aspect ratio. Used on many DVDs.
Aspect ratio	The ratio of image width to image height. Common motion-picture ratios are 1.85:1 and 2.35:1. Television screens are usually 1.33:1 (also known as 4:3). HDTV is 1.78:1, or 16:9.
A/V switch	A device with several audio and video source inputs that sends a selected audio/video source input signal to an output device like speakers or a TV.
DLP® (Digital Light Processing)	Projector screen technology that relies on using individually controlled tiny mirrors (micro mirrors) to produce an image. Developed originally by Texas Instruments.
DVD recorder (DVR)	A standalone unit that resembles and functions very much like a VCR. Like a VCR, DVD recorders all have AV source inputs, as well it can record TV shows.
HDTV (High Definition Television)	The high-resolution form of television. HDTV has 1125 lines of resolution, or more than five times the video information than that of a TV set, creating a much crisper, more detailed picture.
In sync	The Harmony 650 knows what state all of your devices are in, such as whether they are on or off and which inputs they were last using. When it loses track of this information, it becomes "out of sync". Your remote can send commands to your devices to become "in sync" again.
Light controller	A device that is connected to a set of lights and allows the lights to be powered or dimmed remotely.
Mini-system	A single unit that is some combination of the functionality of a DVD, VCR, radio, and amplifier.
NTSC (National Television System(s) Committee)	The standard video broadcast format used in North America.

Output Device	A device that produces the sound or picture, for example, a TV or speakers.
PAL (Phase Alternating Line)	A video format that is used in the UK, and parts of Europe and Asia.
Passthrough	A device that routes video or audio from one device to another device.
Personal Video Recorder (PVR)	Contains an internal recorder and player that records and plays video without the use of a removable tape or disc. Typically PVRs can pause, rewind, instantly replay, and play slow-motion for live or recorded TV. Examples of PVR service providers are TiVo, ReplayTV, UltimateTV, and Keen PM. Many satellite providers also provide PVR services and have PVRs included in some of their satellite receivers.
Pre-amplifier	A control and switching component that may include equalization functions.
Pre-amp Sound Processing	Takes a small signal and amplifies it sufficiently to be fed into the power amplifier for further amplification. A pre-amp includes all of the controls for regulating tone, volume, and channel balance. This task is known as sound processing.
Receiver	Also referred to as a tuner or a stereo receiver. A receiver can be any component that receives or tunes broadcast signals, or AM/FM radio. Typically refers to the single component that includes a preamplifier, surround processor, multi-channel amplifier, and AM/FM tuner.
RF (Radio Frequency)	Used by some remote controls, to control devices because it doesn't have the same line-of-sight restrictions as IR (infrared) signals.
SACD (Super Audio CD)	A read-only optical audio disc aimed at providing much higher quality of digital audio reproduction than the compact disc.
Satellite Radio	A service in the United States that provides digital programming directly from satellites. Currently the 2 main providers for service are XM and Sirrus.
SDTV Standard Definition Television	One mode of operation of digital television where the broadcaster transmits pictures with detail similar to, or slightly better than, today's analog television. Since the picture contains less information, there is "room" in the digital signal multicast broadcasting.

Stereo receiver

Also referred to as a tuner or a receiver. A stereo receiver is any component that receives or tunes, broadcast signals, or AM/FM radio. Typically refers to the single component that includes a preamplifier, surround processor, multi-channel amplifier, and AM/FM tuner.

Tuner

Also referred to as a receiver or a stereo receiver. A tuner is any component that receives or tunes, broadcast signals, or AM/FM radio.

Typically refers to the single component that includes a preamplifier, surround processor, multi-channel amplifier, and AM/FM tuner.

Power strip

A common device that acts like an extension cord, providing additional cord length, as well as a mechanism that offers several electrical outlets.

Appendix C - Product Specification

LCD Size	1.5" Diagonal
LCD Resolution	128 x 128
LCD Screen	65,000 Color
Power Source	AA batteries
Brands Supported	5,000+
Devices Supported	200,000+
Maximum number of devices per account	5
Backlit keypad	Yes
Backlight Color	White
IR Learning	Yes (Up to 200 Khz)
Learning Capabilities	Any IR Device (Up to 200 Khz)
IR Transmitters	2
IR Transmission Range	Up to 50 ft
Memory Type	Flash
Memory Amount	2MB
Weight	6 oz (with battery installed)
Dimensions	8.75" x 2.3" x 1.3"
Warranty	1 Year (2 Years for Europe)
Supported Platforms	Windows XP/Vista/7 MAC OS X 10.3 +

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