# User Manual and Installation Guide



## HD FLOW™

### Pro Wireless Multimedia Kit

**Models:**
HDS200
HDS200-2
HDS200-3
HDS200-4

Full HD 1080    HDMI    3D READY

peerless-AV™

# Contents

## Safety Precautions

Keep the product out of reach of children.

Keep the product away from external heat sources such as heaters or stoves.

If there is any unusual sound, smoke or odor coming from the product, immediately unplug the product and call Peerless-AV Customer Care at 1-800-865-2112.

Keep the battery of remote control out of reach of children.

Do not attempt to open the outer case of the Transmitter or Receiver. Doing so will void the product warranty.

Keep the remote control away from humidity and/or liquids.

Do not insert foreign objects into the unit.

Do not place the unit on an unstable surface or in a poorly ventilated area.

Make sure to plug the AC power adapters firmly into wall outlets.

Do not use the unit near any flammable substances or combustible sprays.

If any part of the AC power adapter looks damaged, do not use the product and immediately call Peerless-AV Customer Care at 1-800-865-2112.

Keep the product unplugged if unused for an extended period of time.

## Proper Care and Safety

Please read this manual before using the product.

## Unit Care Recommendations

- Unit can be placed vertically (preferred) or horizontally.
- To clean, use a soft, dry cloth only. Do not use water or other cleaning products as they may cause electrical failure or damage the surface of the product.

## Introduction

HD Flow Pro Wireless Multimedia Kit provides Full HD 1080p signal transfer, including 3D signal*, without the hassle of running cables. Create brilliant HD quality multimedia for signage, presentations, or entertainment in any location,completely un-tethered to your source device!

By simply connecting the Transmitter to a multimedia device such as a computer, set-top box, or Blu-ray™ player and connecting the Receiver to a display device, instant real-time high definition digital audio and video can be placed into in any commercial or residential setting. HD Flow Pro Wireless Multimedia Kit transmits through walls and floors to allow the components to be neatly tucked away in an AV rack or media cabinet, and is the ideal solution for quick and easy installation where running cable is cost prohibitive or simply not an option.

* Works with passive 3D signals

### Features
- Low latency: ≤ 30ms.
- Supports both digital (HDMI) and analog (Component, Composite) video/audio.
- Supports Wireless or Wired connection - IEEE 802.11n 5 GHz WiFi, LAN connection.
- Two internal antennas (supporting MIMO).
- HDCP v1.1 compliant.
- Supports both DTV & VESA standards: DTV: 1920x1080i60/p60, 1280x720p60, 720x480i60/p60, VESA : WSXGA+(1680x1050), SXGA(1280x1024), WXGA(1280x800), XGA(1024x768), SVGA(800x600), VGA(640x480).
- Supports passive 3D content.
- Plug and play setup requires no software programming.

### Package Contents
Ensure that the following items are present in the package. If any items are missing or damaged, please call Peerless-AV Customer Care at 1-800-865-2112 (available 7:00am - 7:00pm CST Monday - Friday).



Transmitter



Receiver



Component Adapter



Stand (2)



Remote Control



Battery



IR-Extender



AC Adapter (2)



IR-Flasher



Manual



Quick Start Guide

# Product Specifications

| HDS200 Models | |
|---|---|
| **Video Input (Transmitter)** | 2 x HDMI up to 1080p (60Hz) |
| | 1 x Composite |
| | 1 x YPbPr Component |
| **Video Output (Receiver)** | 1 x HDMI up to 1080p (60Hz) |
| | 1 x Composite |
| | 1 x YPbPr Component |
| **Encoding** | H.264 Baseline Profile with Level 4.2 |
| | HDCP compliant |
| **Wireless Connection** | Supporting IEEE 802.11n: OFDM |
| **Wired Connection** | RJ-45 LAN Port |
| | Direct Connection (LAN Cable) |
| **LAN** | 1 x LAN Port (Transmitter and Receiver) |
| | 10/100 Base |
| **USB** | 1 x USB Type A Female (Receiver) |
| **Audio Input** | 1 x 3.5mm Audio Jack, 1 Stereo RCA Audio Jack (Transmitter) |
| **Audio Output** | 1 x 3.5mm Audio Jack, 1 Stereo RCA Audio Jack (Receiver) |
| **Video Resolution** | 480i/p, 720p, 1080i/p (24/30/60fps) |
| **Streaming Latency** | < 30ms |
| **Frequency** | 5.15 - 5.25GHz |
| **LAN Connection** | 10/100 Base |
| **Range** | 131ft (40m) maxium |
| **Broadcast** | 1 Transmitter up to 4 Receivers* |
| **Security** | 802.1x, 802.11i, WPA2, WPA and WEP 64/128 TKIP AES |
| **Antenna Type** | 2 x Internal Antenna (Transmitter and Receiver) |
| | MIMO Interface |
| **IR Flasher** | 3 IR Flashers |
| **IR Extender** | IR-Extender |
| **Color** | Black |
| **Power** | Voltage: 12VDC |
| | Amps: 2A |
| | Consumption: 12V 2A |
| *Requires additional Receiver units | |

## Video Format Supported
- Digital Video
  - ° HDMI - Up to 1080p @ 24Hz, 25Hz, 30Hz, 50Hz, 60Hz

- Analog Video
  - ° Composite – 480i @ 60Hz, 70Hz, 85Hz
  - ° Component – 1080i @ 50Hz, 60Hz, 720p @ 50Hz, 60Hz
  - ° VGA – Up to 1920x1080 @ 50Hz, 60Hz

## Audio Format Supported
- Analog
- Digital
- Receiver outputs stereo audio

## Wireless Connection
- Peer-to-Peer Mode
- Multicast Wireless Mode

## WiFi Channel Frequencies
- Channel 1: 5.19GHz (WiFi Ch 38)
- Channel 2: 5.23GHz (WiFi Ch 46)

**Note:** WiFi Channels are only active when using Wireless Peer-to-Peer or Multicast modes. The Transmitter and Receiver have the ability to operate on two WiFi Channels. The default channel is Channel 1, if there is interference issues on Channel 1 a change to Channel 2 will eliminate most of these issues.

**Transmitter**
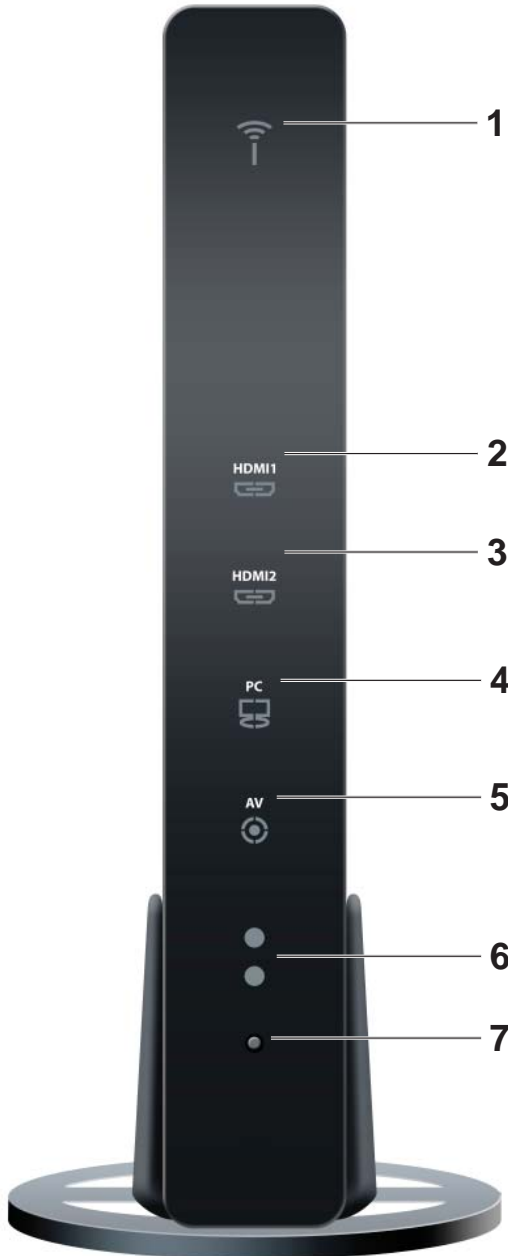


**Transmitter Front**

**Transmitter Front**

**1. Power/Link Indicator Light**
- Blinking indicator light - System booting or establishing link between the Transmitter and the Receiver.
- Quick blinking indicator light - Software upgrading or wireless/LAN mode switching.
- Solid indicator light - Link between the Transmitter and Receiver has been established and is ready for signal transmission.

**2. HDMI 1**
- The **HDMI 1** indicator light will be illuminated when the HDMI 1 port is selected for video input.
- If there is no signal, and/or the cable is not connected, the indicator light will blink.

**3. HDMI 2**
- The **HDMI 2** indicator light will be illuminated when the HDMI2 port is selected for video input.
- If there is no signal, and/or the cable is not connected, the indicator light will blink.

**4. PC**
- The **PC** indicator light will be illuminated when the PC In port is selected for video input.
- If there is no signal, and/or the cable is not connected, the indicator light will blink.

**5. AV**
- The **AV** indicator light will be illuminated when the AV In port (Composite) is selected for the video input.
- If there is no signal, and/or the cable is not connected, the indicator light will blink.

**6. IR Window**
- IR receiving window enables remote control of components.

**7. Power/Source Selection Button**
- Press and hold for 3 seconds to turn on the unit.
- When powered on:
  - ° Press to select the video input source. Each press of the button will cycle through the available video input "HDMI1→ HDMI2→ PC→ AV →HDMI1" in sequence.
  - ° Press and hold for 8 seconds to turn the unit off.

**2** — HDMI 2 IN

**1** — HDMI 1 IN

**3** — AV-IN

**4** — IR-OUT

**5** — PC AUDIO-IN

**6** — PC-IN

**7** — LAN

**8** — DC

TRANSMITTER

**Transmitter Back**

**Transmitter Back**

**1. HDMI 1 IN**
- HDMI1 input port

**2. HDMI 2 IN**
- HDMI2 input port

**3. AV-IN**
- Composite input port

**4. IR-OUT**
- Connects IR Flasher to the Transmitter for remote control of external devices which are connected to the Transmitter (i.e. Blu-Ray player, DVD, STB, etc).

**5. PC AUDIO-IN \***
- Stereo audio input port

**6. PC-IN (VGA)\*\***
- Supports component input with included Component Adaptor

**7. LAN**
- LAN connection is used for the following:
  - º Direct connection to LAN cable for LAN installations.
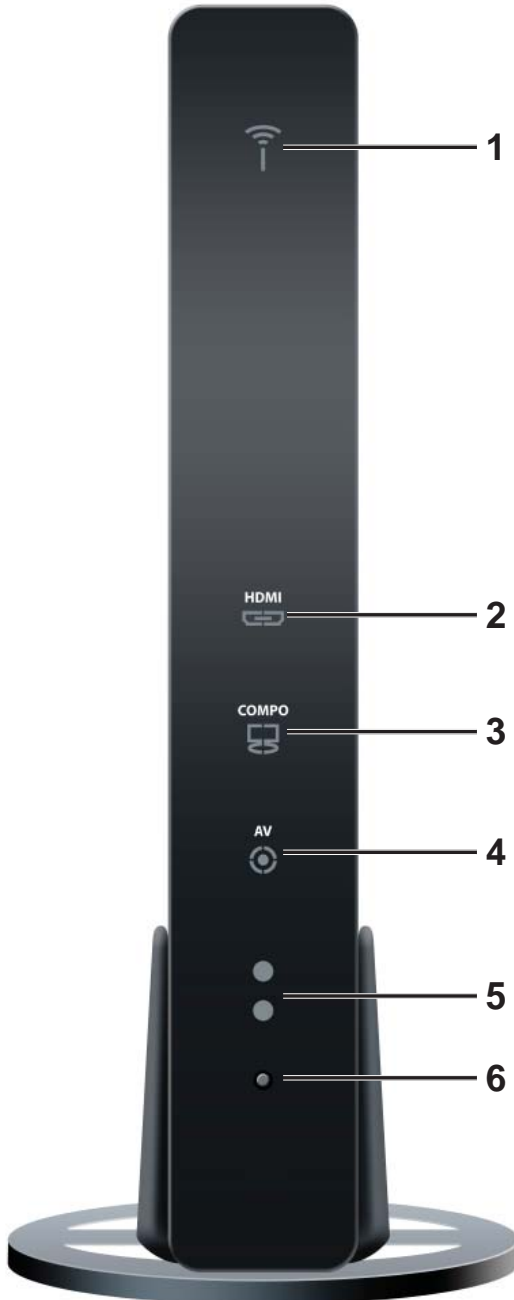  - º Direct connection to PC for system configuration settings.

**8. DC**
- DC power input

\* For the audio part of a component media source, use the PC Audio input port with a 3.5mm to RCA cable (not included).

\*\* If using the PC Video input port for component (YPbPr) media source, use the included component to VGA adapter.

**Receiver**



**Receiver Front**

**Receiver Front**

**1**. **Power/Link**
- Blinking indicator light - System booting or establishing link between the Transmitter and the Receiver.
- Rapid blinking indicator light - Software upgrading or wireless/LAN mode switching.
- Solid indicator light - Link between the Transmitter and Receiver has been established and is ready for signal transmission.

**2. HDMI**
- The HDMI indicator light will be illuminated when the HDMI port is selected for video output.
- If there is no signal, and/or the cable is not connected, the indicator light will blink.

**3. COMPO**
- The COMPO (component) indicator light will be illuminated when component output is selected for video output.
- If there is no signal, and/or the cable is not connected, the indicator light will blink.
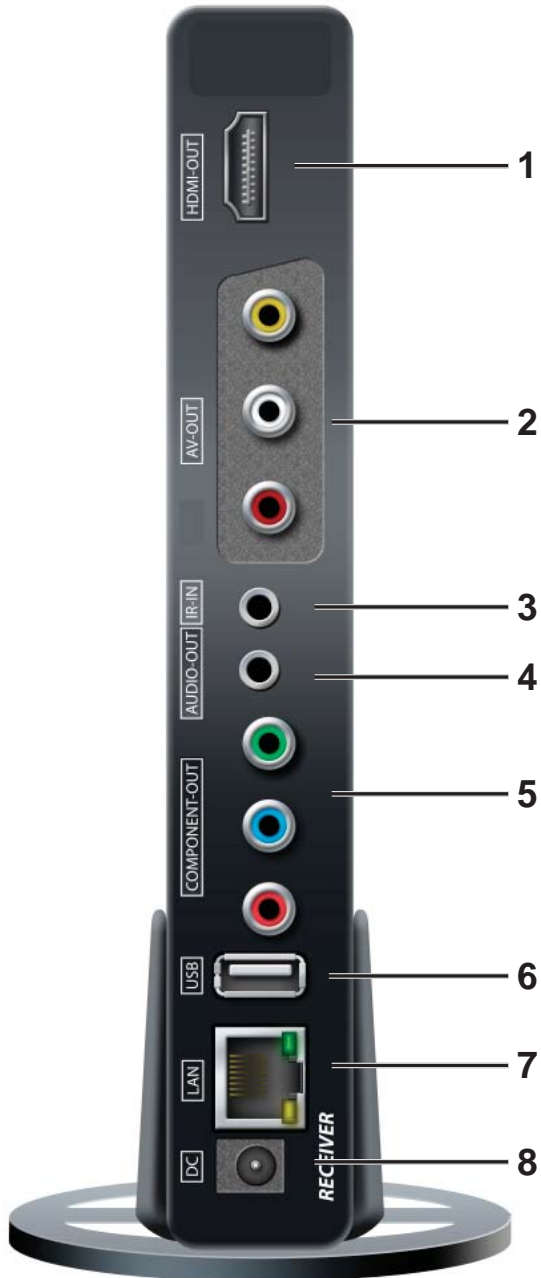
**4. AV**
- The AV indicator light will be illuminated when the AV port (composite) is selected for the video output.
- If there is no signal, and/or the cable is not connected, the indicator light will blink.

**5. IR Window**
- IR receiving window enables remote control of components.

**6. Power/Source Selection Button**
- Press and hold for 3 seconds to turn on the unit.
- When powered on:
    ° Press to select the video input source. Each press of the button will cycle through the available video input "HDMI→ COMPO→ AV →HDMI" in sequence.
    ° Press and hold for 8 seconds to turn the unit off.

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**1** — HDMI-OUT

**2** — AV-OUT

**3** — IR-IN

**4** — AUDIO-OUT

**5** — COMPONENT-OUT

**6** — USB

**7** — LAN

**8** — DC

**Receiver Back**

**Receiver Back**

**1. HDMI-OUT**
- HDMI output port

**2. AV-OUT**
- Composite output port

**3. IR-IN**
- Connects the IR Extender in order to extend IR reception range.

**4. AUDIO-OUT***
- Stereo audio output port

**5. COMPONENT-OUT***

**6. USB**
- USB port is used for firmware upgrades only.
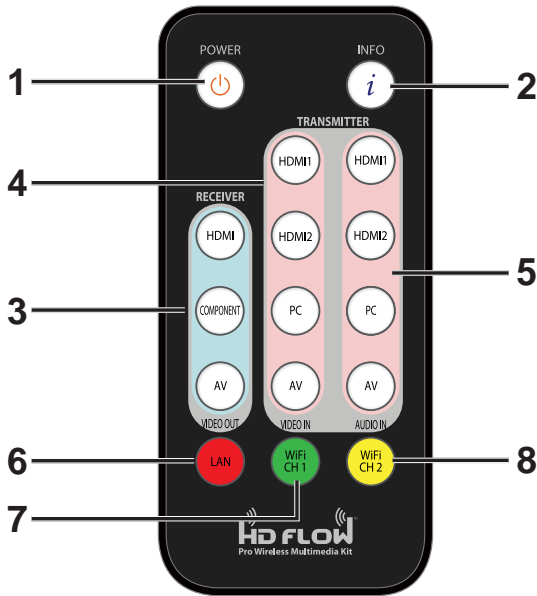
**7. LAN**
- LAN connection port is used for the following:
  - ° Direct connection for LAN installations.
  - ° Direct connection to PC for system configuration settings.

**8. DC**
- DC power input

* For the audio part of a component media source, use the PC Audio Input port with a 3.5mm-to-RCA cable (not included).

## Remote Control



1**. POWER Button -** Turns the Transmitter and Receiver power ON/OFF.

- ON: If the Transmitter and Receiver are powered off and the Power/Link Indicator Light is on, press the power button pointed at either unit to turn on both unit's at the same time (this will take about 30 seconds).

- ON: If the Transmitter and Receiver are powered off and the Power/Link Indicator Light is off, each unit will need to be turned on separately. Point the remote at each unit's IR Input port and press the power button to turn on (this will take about 1 minute and 30 seconds).

- OFF: If the Transmitter and Receiver are powered on and the Power/Link Indicator Light is on, press the power button to turn off both units at the same time to put the system in Standby mode. The Power/Link Indicator Light will remain on.

- OFF: If the Transmitter and Receiver are powered on and the Power/Link Indicator Light is on, press and hold the power button for 8 seconds. Both Transmitter and Receiver will be turned off at the same time. The Power/Link Indicator Light will turn off.

**Note:** If the Transmitter and Receiver are powered on with the Power/Link Indicator Light flashing, both units will need to be powered off individually.

**2. INFO**\* - Displays the following information on the screen for:

- Transmitter \*\* - WiFi Channel, Firmware Version, Audio/Video Input, and Source Resolution.
- Receiver - Connection, Firmware Version, Video Output, Display Resolution, WiFi Reception Strength 1/5 to 5/5 (where 1/5 is the weakest signal and 5/5 is the strongest signal).

**\*** Displayed information will disappear automatically after 10 seconds.

**\*\*** The Transmitter unit's information will only be displayed if the connection between the Transmitter unit and Receiver has been established.

**3. VIDEO OUT (Receiver) -** Selects the Audio/Video output port of the Receiver.

- **HDMI** - Selects HDMI as the Audio/Video output.
- **Component** - Selects Component as the Audio/Video output.
- **AV** - Selects AV as the Audio/Video output.

**Note:** Remote must be pointing at the Receiver directly to control its output settings. This may also be accomplished without the use of the remote control by toggling between outputs via the Power/Source Selection Button.

**4. VIDEO IN (Transmitter)** - Selects the Video input port of the Transmitter.

- **HDMI1** - Selects HDMI1 as the Audio/Video input.
- **HDMI2** - Selects HDMI2 as the Audio/Video input.
- **PC** - Selects VGA/Component as the Video input.
- **AV** - Selects Composite as the Video input.

**5. AUDIO IN (Transmitter)** - Selects the Audio input port of the Transmitter.

- **HDMI1** - Selects HDMI1 as the audio input.
- **HDMI2** - Selects HDMI2 as the audio input.
- **PC** - Selects PC audio-in as audio input.
- **AV** - Selects Composite audio-in as the audio input.

**Notes:**
1. By default, when a video input is selected the audio will automatically be switched to the same input where audio is available.
2. Independent audio switching is only allowed for AV Audio and PC Audio.

**6. LAN\* (Red)** - Selects LAN (wired) mode.

**7. WiFi CH1\*\* (Green)** - Selects WiFi (Wireless) mode, Ch1.

**8. WiFi CH2\*\* (Yellow)** - Selects WiFi (Wireless) mode, Ch2.

\* Press and hold the LAN button for approximately 6 seconds to change the connection setting to Wired Mode.

\*\* To change WiFi channels press and hold the desired WiFi channel button for approximately 6 seconds or until the Link Indicator Light starts blinking.

**Note:** If the WiFi channel is changed while the wireless connection between the Transmitter and Receiver is active, noted by a solid Link Indicator Light, the WiFi frequency of the Transmitter and the Receiver will be changed simultaneously. If the WiFi channel is changed while the connection between the Transmitter and the Receiver is not established, noted by a flashing Link Indicator Light, ONLY the unit that receives the IR signal will change WiFi frequencies. For proper operation both Transmitter and Receiver need to be on the same WiFi channel.

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**Installing the Remote Control Battery**

The battery slip is located on the bottom of the remote control.

**Step 1**

Push the tab, located on the left of the battery slip, to the right and pull out the slip.

Battery Slip Tab

Battery Slip

**Step 2**

Place the battery into the slip, positive (+) end facing up as shown.

**Step 3**

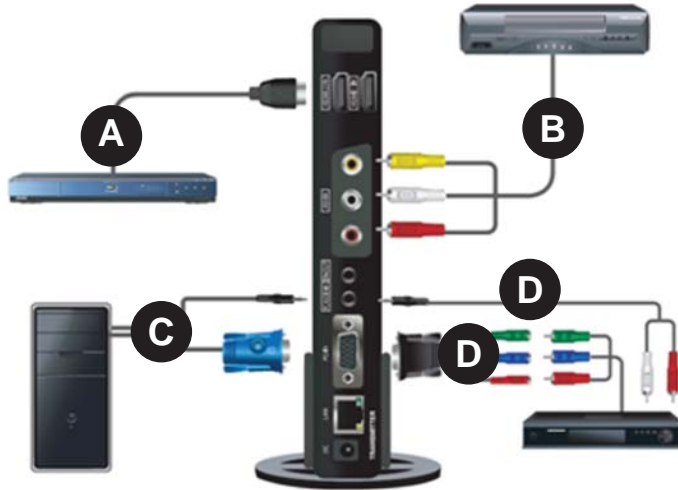Place the slip back into the remote to complete the installation.

## Installation and Operation

Before starting the installation, please ensure that all source components (Blu-ray player, cable box, etc.) and the display equipment (TV, display, projector, etc.) are turned off.

**Step 1**

**Connecting Source Components To The Transmitter**



### A. HDMI Media Source

• Connect HDMI cable from the source components output to the Transmitter's **HDMI1** or **HDMI2** input port.

 **Note:** It is recommended that **HDMI1** input port be used if only one HDMI source component is present.

### B. Composite Media Source

• Video – Connect "yellow" composite video RCA post to yellow port.
• Audio – Connect "red and white" composite audio RCA posts to the red and white ports.

### C. VGA Media Source

• Video - Connect the VGA cable from the media source's VGA output to the Transmitter's VGA input.
• Audio - A 3.5mm stereo audio cable is required (not included) to transmit audio when using this input. Connect the 3.5mm stereo audio cable from the VGA source component's audio output to the Transmitter's **PC AUDIO-IN** port.

### D. Component Media Source

- Video – Connect the Component Video output (YPbPr) from the source, into to the Component Adapter (included). Connect the Component Adapter to the **PC-IN** port on the Transmitter.
- Audio - Connect a 3.5mm-to-RCA stereo audio cable (not included) from the media source's audio output to the **PC AUDIO-IN** input port on the Transmitter.

**Step 2**

**Setting Up Media Component IR Remote Control Capabilities**
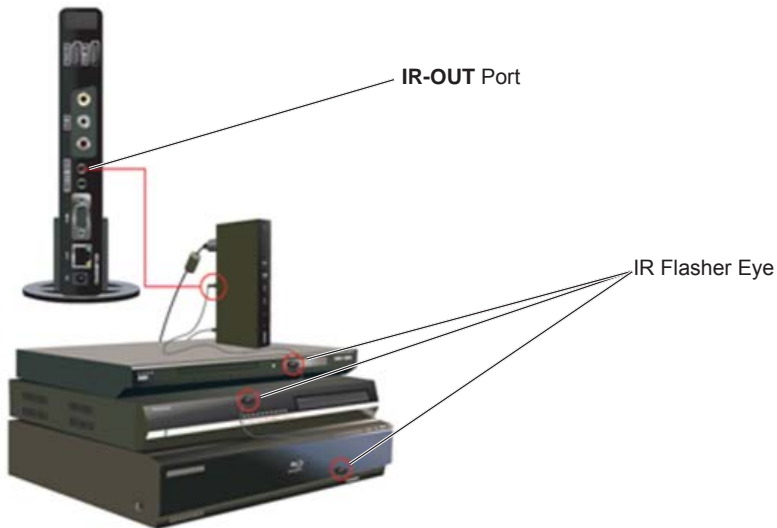


**A.** Connect the provided IR Flasher to the **IR-OUT** port of the Transmitter.

**B.** Find the location of the IR widow on your component and adhere the IR Flasher Eye directly over the IR window of your component.

**Note:** One IR Flasher eye is to be used for one component device.

**Tips**

Most often the IR window on the source device is easier to locate with direct light shining on sections of the front panel of the device (a small flashlight or a camera phone flashlight works well).

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**Step 3**

**Connecting the Receiver to the Display Device**

**Note:** Connect the Receiver to the display device using the port with the high resolution capability, HDMI port is preferred. Regardless of the number of analog or digital sources connected to the Transmitter, only one port is required to be connected to the display. Be sure the source resolution matches with the display device's resolution capabilities.

**A. HDMI Output to Display**

- Connect the HDMI cable from the Receiver's HDMI output to the display device's HDMI input.

**B. Composite Output to Display**

- Connect the composite RCA cable from the Receiver's **AV** output to the display device's composite input.

**C. Component Output to Display**

- Video - Connect the component video (YPbPr) cable from the Receiver's **COMPONENT-OUT** to the displays device's component input.
- Audio - A 3.5mm-to-RCA stereo audio cable is required (not included) to transmit audio when using this input. Connect the 3.5mm end of the cable to the Receiver's **AUDIO-OUT** port, then connect the RCA side of the cable to the RCA ports on the display decive.
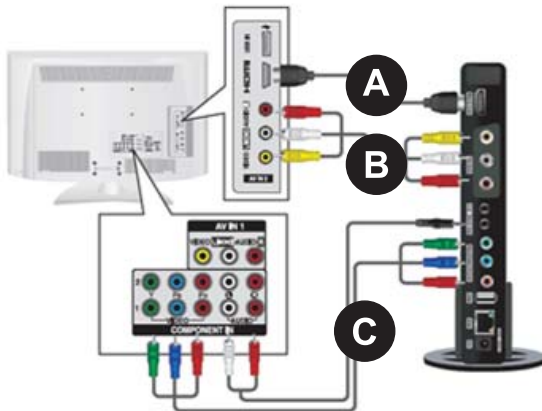
**Step 4**

Install the IR Extender by plugging in the provided IR Extender into the **IR-IN** port on the Receiver. (IR Extender use is optional. Use the IR Extender when the Receiver is out of sight or to extend the range of the Receiver's IR reception range.)

**Step 5**

**Powering-up the HD Flow Multimedia Kit**

Plug in the power adapters for the Transmitter and the Receiver to available power outlets.  Plug in the other end of the power cable to the Transmitter and then to the Receiver. The units will automatically turn on.

**Step 6**

Turn on your display device (TV, monitor, projector, etc.)

While turning on the display device, the HD Flow Pro Wireless Multimedia Kit will be going through the start up process. The process takes about 1.5 to 2 minutes to complete. The Power/Link Indicator Light on the Transmitter and the Receiver should be flashing at first. Flashing indicates that that the units are establishing a secure connection. Wait until the connection is successfully established, indicated by a solid Power/Link Indicator Light.

**Step 7**

Select the output that the Receiver is connected to the display device with. At this time the output indicator light will become solid and the HD Flow logo will appear on the display device.

**Step 8**

Turn on the desired media source device that is connected to the Transmitter.

**Step 9**

Select the desired media source device input on the Transmitter.

**Step 10**

Play the source device media content and enjoy up to Full HD 1080p wireless entertainment experience.

**Tips**

If the Transmitter and Receiver are not establishing a connection:

> **a.** Ensure that both the Transmitter and Receiver are on the same WiFi Channel.

> **b.** If the units are not connecting after trying (a), it is recommended to unplug the power to both units, let it rest for 30 seconds and then plug them back in. This will power cycle the units and allow them to reboot themselves.

> **c.** If the above two tips do not assist, please reference the Factory Reset section of this manual. (Appendix)

If the connection has been established and the HD Flow logo can be seen on the display device, but content is not playing when initiated:

> **a.** Ensure that cables are properly connected.

> **b.** Ensure the Transmitter is set to the proper input port and that the Receiver is set to the proper output port.

> **c.** Ensure that the display device is set to the proper input.

> **d.** The display device needs to be able to support the resolution of the media source that is being streamed. Utilizing the INFO button, while connected via HDMI, will allow you to see the EDID resolution data that the display device accepts. (Example - If the display device supports the highest resolution of 720p but the source device is outputting 1080p content, the content needs to be downscaled to the maximum resolution of the display device, in this case 720p).

## Selecting Input and Output Port

There are two ways to select input and output sources on the HD Flow Transmitter and Receiver:

1. Using the provided Remote
   - Transmitter - Press the desired input while pointing the remote at the Transmitter unit.
   - Receiver - Press the desired output while pointing the remote at the Receiver.

2. Using the Power/Source Selection Button
   - Transmitter / Receiver - To toggle between inputs press the Power/Source Selection Button on the unit itself.

**Notes:**
1. Audio and video sources will switch simultaneously whether using the remote or Power/Source Selection Button.
2. Independent audio switching is only allowed for AV and PC audio.
3. Inputs on the Transmitter and Receiver can be switched by pointing the remote at the Transmitter or Receiver ONLY if the connection between Transmitter and Receiver has been established, Link Indicator Light on.
   If the connection between Transmitter and Receiver has not been established, the inputs need to be selected at the location of each unit using either of the above input and output selection methods.

## Peer-to-Peer and Multicast LAN (wired) Mode Installation

LAN Connection Through Router



Peer-To-Peer Direct Lan Connection

### Peer-to-Peer Direct LAN Connection
**Step 1**

Connect the LAN cable between the RJ45 jack on the Transmitter and Receiver. The green light at the connector will turn on solid.

**Step 2**

With the system running (Power/Link Indicator Light solid and input and output Indicator Lights solid), point the remote at the Receiver, press and hold the LAN button for 5 seconds until all the indicator lights start flashing on both the Transmitter and the Receiver.
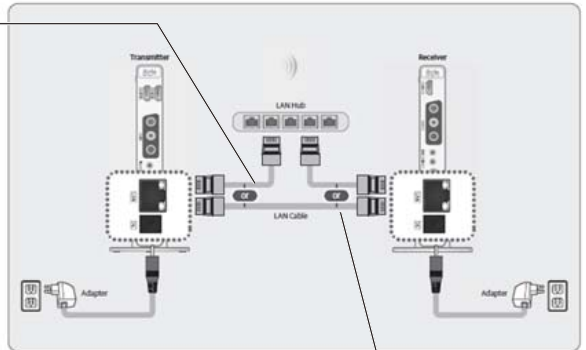
**Note:** The video and audio will be lost during this process.

**Step 3**

Allow the HD Flow Pro Wireless Multimedia Kit to re-start. Do not remove power, reset, or use the remote while the system is restarting. Restart of the HD Flow Pro Wireless Multimedia Kit may take up to 2 minutes.

**Step 4**

Once the HD Flow Pro Wireless Multimedia Kit has restarted, check the LAN connection indicator light on the back of the unit. The indicator lights on both the Transmitter and Receiver should be blinking rapidly. The WiFi indicator lights on the front of both the Transmitter and the Receiver will be solid.

**Notes:**
1. We recommend that you disconnect and then re-connect the LAN cable to ensure LAN operation. Once video and audio come back up, the process is complete.
2. To return the units back to WiFi mode press the WiFi Channel 1 button for 5 seconds in front of the Receiver until all the indicator lights start flashing on both the Transmitter and the Receiver. The video and audio will be lost during this process.
3. LAN setting can be changed to a single unit independently by following the above instruction with only the Transmitter or Receiver turned on.

## LAN Connection Through Router (LAN One-to-One)

When connecting the HD Flow Pro Wireless Multimedia Kit through a router, the Ethernet IP addresses of the Transmitter and Receiver need to match the domain of the router (i.e. 192.168.x.x). Once the Ethernet IP addresses are in the same domain, the indicator lights located at the top of the unit will become solid, signifying connection.

## Configuring for LAN Through Router (LAN One-to-One)

**Note:** Networking experience is recommended for configuring LAN through router settings.

Transmitter and Receiver need to be configured to LAN setting individually using the guide below:

### Step 1

Configure your computer's Ethernet static IP settings to the following:
IP Address: 192.168.0.157
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.0.1

### Step 2

Plug in the HD Flow Pro Wireless Multimedia Kit and ensure it has fully started up (Power/Link Indicator Light and one Input Indicator light will be blinking).

### Step 3

Connect one end of the RJ45 cable to the computer and the other end of the RJ45 cable to the Transmitter or Receiver.

### Step 4

Open your preferred browser. In the URL enter 192.168.0.151 for Transmitter, 192.168.0.152 for Receiver and press enter. You will be taken to the programming page.

**Notes:**
1. The Transmitter Ethernet IP address is always 192.168.0.151, the IP address of a new Receiver will always be 192.168.0.152. (Multiple Receivers can be configured on a LAN system, each additional Receiver needs to be assigned an Ethernet IP address one greater than 192.168.0.152. Example Receiver 1: 192.168.0.152, Receiver 2: 192.168.0.153, Receiver 3: 192.168.0.154, Receiver 4: 192.168.0.155, and so on).
2. Receivers on the same LAN network cannot have identical Ethernet IP addresses.

**Step 5**

Under the heading "Streaming I/F" use the pull down menu to change WiFi to LAN.

**Step 6**

Enter the proper IP address, for the unit being set up, based on the network's domain.

**Step 7**

Once all the settings have been entered click the **Submit** button at the bottom of the form. Keep clicking on the **Submit** button until you see confirmation "System configurations are changed", as below:



**Step 8**

After submitting the information and receiving confirmation it is MANDATORY to click on **Save Changes**, located in the left-hand navigation bar to ensure that your programming will be saved. Once clicking on **Save Changes**, you will be prompted to save your system configurations. Confirm that you would like to save them by clicking the **Save** button. You will be prompted again to make sure you want to save these changes. Confirm that you would like to save them by clicking the **Save** button again.
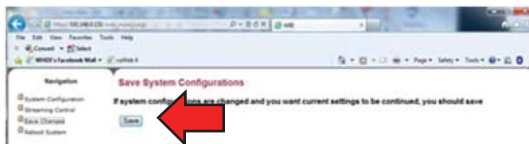


# Indicator Lights Decoded

**Transmitter/Receiver**

- Power/Link Indicator Light
  - º Rapid Flashing – Switching from Wireless to LAN or from LAN to Wireless connection or performing firmware update.
  - º Flashing – Units are booting and establishing a secure connection for AV transfer.
  - º Solid – Successful connection has been established between Transmitter and Receiver(s).

**Transmitter**

- HDMI1, HDMI2, PC, AV – The indicator light will be lit to indicate the input that is currently selected. If the selected input does not have a connection or the signal from the media source is not present, the selected input Indicator Light will be flashing.

**Receiver**

- HDMI, COMPO, AV - The indicator light will be solid for the selected port as long as the output cable is present and connected to the output device. If no output device is detected by the selected output port, the indicator light will be flashing.

## IR Flasher

IR Flashers are provided to allow for control of up to three source devices using the device's original remote control at the Receiver location. The IR Flasher is connected to the Transmitter and its three eyes are adhered to the media source devices' IR window (See **Setting Up Media Component IR Remote Control Capabilities** in the **Installation and Operation** section of this manual).

## IR Extender

The IR Extender provided extends the range of the IR on the Receiver and support placement of the Receiver out of sight. (See **Connecting The Display Device to the Receiver** in the **Installation and Operation** section of this manual).

## Product Modes

HD Flow Pro Wireless Multimedia Kits have the capability to stream from one Transmitter to one Receiver or from one Transmitter to up to four Receivers.

| Model | Capability | Mode |
|-------|-----------|------|
| HDS200: | HD Flow Pro Wireless Multimedia Kit: streams to one display devices | Peer-to-Peer Wireless |
| HDS200-2: | HD Flow Pro Wireless Multimedia Kit: streams to two display devices | Multicast Wireless |
| HDS200-3: | HD Flow Pro Wireless Multimedia Kit: streams to three display devices | Multicast Wireless |
| HDS200-4: | HD Flow Pro Wireless Multimedia Kit: streams to four display devices | Multicast Wireless |

**Note:** Maximum of four (4) Receivers can be paired to one Transmitter when using Multicast Wireless mode.

## Peer-To-Peer Modes

**Peer-To-Peer Wireless Mode**
Peer-to-Peer Wireless Mode is a pre-configured setting that enables one Transmitter to stream AV media to one Receiver. HDS200 model HD Flow Pro Wireless Multimedia Kit comes pre-configured for Peer-to-Peer Wireless mode.

**Peer-To-Peer LAN (wired) Mode**
Peer-to-Peer LAN (wired) Mode is an available configuration for applications where wireless signal transfer is not desired, allowed or surpasses wireless distance limitations. This mode allows the Transmitter to be connected directly to the Receiver using an Ethernet cable to transmit AV signal. Wired connection mode requires a CAT5e/6 cable to be connected to the LAN ports between the Transmitter and Receiver. Please visit **http://www.hdflow.com/Tech-Support** for step-by-step LAN programming instructions.

**Note:** Peer-to-Peer units can be configured to multicast mode using the USB Multicast Set-Up Method or LAN Multicast Set-Up Method. Additional Receivers (HDS200-R) are required and sold separately. Please visit **http://www.hdflow.com/Tech-Support** for programming instructions.

## Multicast Modes

### Multicast Wireless Mode
Multicast Wireless Mode is a pre-configured setting that enables the Transmitter to stream AV media from one Transmitter to up to four Receivers. All multicast systems come preconfigured to wirelessly stream to the specified number of Receivers.

Available Multicast Models

| Model | Capability | Mode |
|---|---|---|
| HDS200-2: | HD Flow Pro Wireless Multimedia Kit: streams to two display devices | Multicast Wireless |
| HDS200-3: | HD Flow Pro Wireless Multimedia Kit: streams to three display devices | Multicast Wireless |
| HDS200-4: | HD Flow Pro Wireless Multimedia Kit: streams to four display devices | Multicast Wireless |

### Multicast LAN (wired) Mode (Advanced Settings)
Multicast LAN (wired) Mode is an available configuration for applications where wireless signal transfer is not desired, allowed or surpasses wireless distance limitations. This mode allows for the Transmitter to be configured to an existing LAN to transmit AV signal to multiple Receivers. Please visit **http://www.hdflow.com/Tech-Support** for step-by-step LAN programming instructions.

**Note:** Additional Receivers (HDS200-R, sold separately) are required when adding on to a peer-to-peer system.

## Converting a Peer-to-Peer Wireless HD Flow Multimedia Kit to a Multicast Wireless Multimedia Kit

After the purchase of additional Receiver(s), part number HDS200-R, use the following instructions to add the Receiver(s) to the current system.

## USB Multicast Set-Up Method

To set up the HD Flow Pro Multimedia Kit as a multicast system that transmits to 2, 3 or 4 Receivers using the USB Multicast Set-Up Method please visit **http://www.hdflow.com/Tech-Support** to view the instructional video.

## LAN Multicast Set-Up Method (Advanced Settings)

To set up the HD Flow Pro Wireless Multimedia Kit as a multicast system that transmits to 2, 3 or 4 Receivers using the LAN Configuration Method please reference the instruction manual that comes with the HDS200-R or visit **http://www.hdflow.com/Tech-Support** to download instructions.

## LAN - Wired Connection Mode

The wired connection mode requires a CAT5e/6 cable to be connected to the LAN ports between the Transmitter and Receiver. HD Flow Pro Wireless Multimedia Kit comes standard with enabled wireless connection. Setup for LAN operation is required. Please visit **http://www.hdflow.com/Tech-Support** for step-by-step LAN programming instructions.

Q.  What compression standard does the HD Flow use to stream Full HD 1080p content?
A.  H.264 Baseline Profile Level 4.2 video compression.

Q.  Does HD Flow Pro Wireless Multimedia Kit deliver 5.1 audio?
A.  No, the HD Flow Pro Wireless Multimedia Kit only outputs 2-channel audio at the Receiver.

Q.  What do I use the VGA Adapter for?
A.  The Component Adapter is used when your source device outputs component video that connects to the **PC-IN** (VGA) port. The adapter is used on the Transmitter side only.

Q.  Does the HD Flow Pro Wireless Multimedia Kit need an internet connection to work?
A. No, the HD Flow Pro Wireless Multimedia Kit does not need internet access to work.

Q.  Can the HD Flow Pro Wireless Multimedia Kit access the internet?
A.  No, it is not able to access the internet.

Q.  Is 3D supported?
A.  Yes, passive 3D, which uses non-powered red and green glasses, is supported. However, active 3D, which uses powered shutter type glasses, is not.

Q.  What functions do WiFi Ch 1 and WiFi Ch 2 serve?
A.  If experiencing signal interference such as picture and/or sound degradation or any type of signal interruption, it is recommended to change the channel that the system is running on. The default is WiFi CH 1. WiFi CH 2 is selected by simply pressing the WiFi CH 2 button on the remote. (See the **Remote Control** section of this manual)

Q.  What is the range of the IR receiving window?
A.  The range of the IR receiving window on the Transmitter/Receiver is 6 to 8 feet. If greater range is required an IR Extender is provided with the HD Flow Pro Wireless Multimedia Kit.  Additional IR Extenders (HDS-IRE) can be purchased separately.

Q.  What is the function of the IR Flasher?
A.  The IR Flasher allows the control of AV source components that do not reside in the same location as the output AV device such as the HDTV. (See **Setting Up Media Component IR Remote Control Capabilities** in the **Installation and Operation** section of this manual)

Q.  What is the function of the **IR-IN** port on the Receiver?
A.  The **IR-IN** port accepts the IR Extender cable.

Q.  What is the function of the IR Extender?
A.  The IR Extender cable enables extended location and receiving range to 15 feet from the Receiver's IR window. (See **Setting Up Media Component IR Remote Control Capabilities** in the **Installation and Operation** section of this manual)

Q.  Can HD Flow Pro Wireless Multimedia Kit stream 1080p60Hz in Multicast Mode?
A.  Yes, 1080p 60Hz streaming is available in Multicast Mode when all TVs are 1080p capable. Otherwise the source device needs to be set to the lowest display resolution in the Multicast setup.

Q.  Are the IR codes learnable by a universal remote?
A.  Yes, HD Flow Pro Wireless Multimedia Kit IR codes are learnable. The remote uses a 37kHz carrier frequency and NEC1 protocol.

Q. Can the HD Flow Pro Wireless Multimedia Kit be set to default to a specific input/output if the unit is turned off or power is lost?

A. Yes, the HD Flow Pro Wireless Multimedia Kit can be set to desired input and output ports via a programming page that can be accessed by using LAN programming. Please visit **http://www.hdflow. com/Tech-Support** for step-by-step guide to programming default input/output settings.

Q. What function does the RJ45 (LAN) port support?

A. The RJ45(LAN) port is used for hard wired LAN mode, and allows HD Flow Pro Wireless Multimedia Kit programming.

Q. If the units are configured to LAN mode, is a straight through or a crossover cable used?

A. In LAN mode the CAT5e/6 cable is a straight-through type, using either 568A or 568B terminations.

Q. What is the USB port used for?

A. The USB port is used to upgrade firmware or to do Multicast programming.

Q. Why are there separate Video and Audio buttons on the remote control?

A. The separate AV buttons exist to allow the pairing up of different analog audio sources with any video signal. **Note**: different digital audio sources cannot be mixed.

Q. How can the HD Flow Pro Wireless Multimedia Kit be put in Standby Mode?

A. The HD Flow Pro Wireless Multimedia Kit is put into Standby Mode by pressing the power button on the remote control or on either the Transmitter or Receiver. Re-activation is done by pressing the power button on the remote control once more.

Q. How do I turn off the HD Flow Pro Wireless Multimedia Kit?

A. The HD Flow Pro Wireless Multimedia Kit can be completely turned off by pressing the Power/Source Selection Button for 8+ seconds. This has to be done for each unit individually.

## Factory Reset

### CAUTION

**Factory reset will revert all settings to factory defaults. It is not recommended to perform factory reset on multicast systems (systems that have two or more Receivers). If there are issues with multicast systems, please reference http://www.hdflow.com/Tech-Support or call Technical Support at 1-800-865-2112.**

**Step 1**

Unplug the unit from its power source.

**Step 2**

Press and hold the Power/Source Selection Button on the front panel. Plug in the DC power back into the unit being reset.

**Step 3**

Keep holding the Power/Source Selection Button until the Indicator Lights on the unit are flashing rapidly, approximately 3 seconds.

**Step 4**

Release the Power/Source Selection Button and wait for the unit to reset to factory defaults.

Please visit **http://www.hdflow.com/Tech-Support** to view factory reset training video.

## Firmware Upgrade

Visit **http://www.hdflow.com/Tech-Support/index.html** for Peer-to-Peer and Multicast firmware upgrade instructional videos, file downloads and unit configurations.

**Notes:**
1. HD Flow Pro Wireless Multimedia Kit, Peer-to-Peer units and Multicast units have been pre-configured with the same version of firmware. When purchasing additional Receiver(s) it is recommended to check the firmware version.
2. Firmware update should only be done when units are functioning properly.
3. During the update, DO NOT TURN THE UNIT OFF OR UNPLUG ITS POWER SOURCE. Doing so will cause the unit to no longer function properly.
4. During the update process the display device will not show content.
5. Only when the unit(s) have finished updating and rebooted should the USB dongle be removed.

# How to Check Firmware Version

### Step 1

Connect the Receiver that needs its firmware to be checked to the display device (reference the installation section of this manual).

### Step 2

Plug in the power AC adapter into a power outlet, and then connect the power cord to the HD Flow Pro Wireless Multimedia Kit and turn on the display device.

### Step 3

The start-up process of the HD Flow Pro Wireless Multimedia Kit takes about 1.5 to 2 minutes to complete. The Power/Link Indicator Light on the Transmitter and the Receiver should be flashing at first. Flashing indicates that that the units are establishing a secure connection. Wait until the connection is successfully established, indicated by the Power/Link Indicator Light becoming a solid light.

### Step 4

At this time the HD Flow logo should appear on your display device.

**Note:** If the logo does not appear, check to ensure that the proper input is selected on the Receiver and the display device.

### Step 5

- Using the provided remote control, point the remote control directly into the IR window of the Receiver that is being checked for firmware version and press the "INFO" button. The below information should show up on the display device.
- Reference the example below on how to find the firmware version for the Transmitter and Receiver.

**Transmitter Designation** —————
**Firmware Version** —————

**Receiver Designation** —————
**Firmware Version** —————



```
HDFLOW Wireless Transmitter
TX:WIFI(192.168.2.1)
    LAN_IP-192.168.0.151
    S/W ver-hdflow:202.15
    VideoIn-HDMI_1 D1920x1080P60
    AudioIn-HDMI_1 PCM 48000
RX:WIFI
    LAN_IP-192.168.0.152
    S/W ver-hdflow:202.15
    VideoOut-HDMI
    Display-D1920x1080P60
    Wifi Quality-5/5

Monitor: VIZ/M220NV
    1920x1080P60/P24/I60
    1280x720P60
    1024x768P60/P75/P70
    800x600P60/P75/P72
    720x480P60
    640x480P60/P75
```

## Supported Video Formats

| Video Standard | Resolution | HD Flow Transmitter | | | HD Flow Receiver | | |
|---|---|---|---|---|---|---|---|
| | | HDMI | D-Sub | AV(CVBS) | HDMI | COMP | AV(CVBS) |
| VESA Format (PC standard) | 640 x 480p60 | O | O | X | O | X | X |
| | 640 x 480p70 | O | O | X | O | X | X |
| | 640 x 480p85 | O | O | X | O | X | X |
| | 800 x 600p60 | O | O | X | O | X | X |
| | 800 x 600p70 | O | O | X | O | X | X |
| | 800 x 600p85 | O | O | X | O | X | X |
| | 1024 x 768p60 | O | O | X | O | ^ | X |
| | 1024 x 768p70 | O | O | X | O | X | X |
| | 1024 x 768p85 | O | O | X | O | X | X |
| | 1152 x 864p60 | O | O | X | O | ^ | X |
| | 1152 x 864p70 | O | O | X | O | X | X |
| | 1152 x 864p85 | O | O | X | O | X | X |
| | 1280 x 800p60 | O | O | X | O | X | X |
| | 1280 x 960p60 | O | O | X | O | ^ | X |
| | 1280 x 960p70 | O | O | X | O | X | X |
| | 1280 x 960p85 | O | O | X | O | X | X |
| | 1280 x 1024p60 | O | O | X | O | ^ | X |
| | 1360 x 768p60 | O | O | X | O | X | X |
| | 1440 x 900p60 | O | X | X | O | X | X |
| | 1600 x 1200Rp60[1] | O | O | X | O | ^ | X |
| | 1600 x 900p60 | O | X | X | O | X | X |
| | 1680 x 1050p60 | O | O | X | O | X | X |
| DTV Format (TV standard) | 720 x 480I60(NTSC) | O | O | O | X | O | O |
| | 720 x 576I50(PAL) | O | O | O | X | O | O |
| | 720 x 480p60 | O | O | X | O | O | X |
| | 720 x 576p50 | O | O | X | O | O | X |
| | 1280 x 720p50 | O | O | X | O | O | X |
| | 1280 x 720p60 | O | O | X | O | O | X |
| | 1920 x 1080i50 | O | O | X | O | O | O |
| | 1920 x 1080i60 | O | O | X | O | O | O |
| | 1920 x 1080p24 | O | O | X | O | X | X |
| | 1920 x 1080p25 | O | X | X | O | X | X |
| | 1920 x 1080p30 | O | X | X | O | X | X |
| | 1920 x 1080p50 | O | O | X | O | X | X |
| | 1920 x 1080p60 | O | O | X | O | X | X |

**O** - Compatable **X** - Not Compatable **^** - Compatibility varys based on output device settings

**Notes:**

1. 1600 x 1200p60 is a reduced format.
2. HD Flow simply relays the input format of the video from the Transmitter to the Receiver. HD Flow does not change the video format. If you want to change output format, you should change input format on the external device which is connected to the Transmitter.
3. When transmitting NTSC:480i or PAL:576i from the Transmitter, **COMPONENT-OUT** MUST be used at the Receiver.
4. Only HDMI 480i resolution input will provide composite **AV-OUT** signal at the Receiver.  For all other resolutions, use **HDMI-OUT** or **COMPONENT-OUT** at the Receiver.
5. PC-IN fully supports resolutions noted above ONLY when **HDMI-OUT** is used at the Receiver.

## FCC Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to:

1. Relocate the receiving antenna.

2. Increase the separation between equipment and Receiver.

3. Connect the equipment into an outlet on a circuit different from that to which the Receiver is connected.

4. Consult the dealer or an experienced radio/TV technician for help.

## CE Compliance

This device has been tested and found to comply with the following European Union directives: Electromagnetic Capability (89/336/EMC), Low Voltage (73/23/EEC) and R&TTED (1999/5/EC).

## Warranty

## 1 YEAR LIMITED WARRANTY

The HDS200 is distributed by Peerless Industries, Inc. using the highest quality components and technology available. The Product is warranted to be free from defects in material and workmanship, given normal use and care, for 1 Year from the original purchase date with proof of purchase. Please retain a copy of your receipt as you will need this to obtain warranty work. We will repair or replace the product which fails as a result of such a defect during the warranty period. The accessories are not covered by this warranty.

**This warranty is the customers' exclusive remedy for product defect and does not apply to:**
- Any modifications made to the product in any way by the customer
- Attachments to the product by the customer that causes product damage
- Any product which the seals/and or serial numbers and/or logos have been broken, removed,
- or tampered with, defaced, or altered in any manner
- Damage caused by abuse, misuse, accident, water, or theft
- Physical damage
- Loss of the Accessories

Except as stated above, Peerless Industries, Inc. makes no express or implied warranties as to any product, in Particular, makes no warranty of merchantability or tness for any particular purpose. Peerless Industries, Inc. shall not be liable for consequential or incidental damages arising from any product defect. Our liability is limited to replacement of any defective product as stipulated under the warranty conditions. Peerless Industries, Inc. expressly disclaims all warranties not satised in this limited warranty. Any implied warranties that may be imposed by law are limited to the terms of this limited warranty.

## Customer Care

Need help with installation or set up? Call Peerless-AV Customer Care
1-1-800-865-2112 (available 7:00am- 7:00pm CST, Monday - Friday), or email us at info@peerless-av.com.

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