KD-22HUCPro

2 Input 4K 18G HDMI Switcher and USB Capture with XLR Mic Input, Audio Mixing, HDMI Pass-Thru, CEC Display Control

![Key Digital KD-22HUCPro front and rear panels. Front: AV Capture USB 3.0, KDCam Control & FW Update USB 2.0, Input Select HDMI 1 HDMI 2, Reset Copy Protect Active, Display ON/OFF. Rear: XLR L/R MIC (L/R P/P), Inputs HDMI 1 HDMI 2, Outputs HDMI L/R, 5V 2A Power, UPC, Serial Number.]

Key digital®

The Experts in Digital Video Technology and Solutions™

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Quick Setup Guide

Please visit www.keydigital.com for the latest product documentation, firmware, control drivers and software downloads. Product features and specifications are subject to change without notice

Always follow the instructions provided in this Operating Manual.

About KD-22HUCPRO

Key Digital® KD-22HUCPro is a 4K/18G 2x1 HDMI switcher and USB capture device with XLR mic input, audio Mixing, HDMI output, and CEC display control for a professional solution ideal for applications like hybrid classrooms, lecture capture, conference and huddle spaces, gaming studios, and e-sports.

KD-22HUCPro's HDMI input and output / pass-thru connections support 4K UHD resolutions at up to 60 frames per second. The HDMI signal may have bandwidth up to 18Gbps with HDR10, 12bit deep color, and 4:4:4 chroma sub-sampling.

KD-22HUCPro outputs non-HDCP captured content in an auto-converted 1080p resolution at up to 60 frames per second on its USB 3.0 port for connection into your PC and external recording software. Industry leading low-latency algorithms ensures none of the action is missed.

Control KD-22HUCPro's HDMI input selection, read HDCP content status, and send CEC power toggle commands to your display using the front buttons. Or control KD-22HUCPro by connecting the USB 2.0 micro port to your PC and use Key Digital's KD-CAM preview and control software with a variety of video and audio adjustments such as microphone and analog audio input levels, HDMI output volume level, HDMI source select, CEC display on, off and CEC AV Receiver volume controls.

What truly makes KD-22HUCPro a unique, all-in-one professional content capture hardware solution is the XLR microphone input with optional phantom power. This enables studio-grade condenser microphones to plug directly into the unit without external adapters or pre-amp and apply desired level settings via the KD-Cam software. Alternatively, you may slide the audio selection switch to L/R input for capture of audio content such as mixer outputs. KD-22HUCPro captures audio and video content, replacing two devices from competing products that capture audio or video only.

Key Features

- **HDMI Switching:** 2 HDMI sources to 1 HDMI output/display

- **HDMI to USB Capture:** Non-HDCP HDMI content is converted to USB 3.0 so it may be connected into a PC or recording device and streamed, used as a video conference camera, or archived

- **Audio and Video Capture:** All-in-one replacement for audio only or video only capture devices

- **USB Down-Convert:** 4K HDMI content up to 18Gbps is selected and passed thru the HDMI output while automatically down-converted to 1080p at a selectable frame rate on the USB 3.0 port

- **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth) on HDMI connections.

- **External Mic and Audio In:** XLR with phantom power and 3.5mm stereo ports enable connection and mix-in of microphone, mixer, or audio device

- **Low-latency capture:** <100ms latency on USB 3.0 AV with default YUC 1080p / 60 uncompressed video format.

- **HDMI Output:** Enables latency-free viewing on connected display / monitor

- **HDCP Licensing:** Fully licensed with HDCP 2.2 and backward compatible

- **HDR10 and Dolby Vision®:** More life-like images through a greater range of luminance levels on HDMI connections

- **Audio De-embedding:** Audio of the selected HDMI input is de-embedded at the analog 3.5mm stereo port

- **Auto Switching:** Automatic selection of newly detected / powered source and switching from newly disconnected / powered off source via hot plug detection voltage when enabled

- **Resolution Support:** Supports all SD, HD, and VESA resolutions up to 4096x2160p on HDMI input and outputs

- **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit on HDMI input and outputs.

- **KDCam Software:** Free software downloaded from the Windows™ store for content preview, audio level adjustments, HDMI source selection, and CC control of your display & AV receiver

- **CEC Control over HDMI:** Power, volume, and muting controls of the connected display and/or AV Receiver without any additional control wiring

- **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, and EDID handshaking

- **EDID Handshake Management:** Internal library with 14 EDID handshakes including 4K with HDR in addition to EDID copy from the connected display / output

- **TMDS re-clocking:** Support for long HDMI connectivity using Key Digital® HDMI cables

- **Digital Audio Format Support:** DTS-HD Master Audio™, DTS:X®, Dolby® TrueHD, Dolby Atmos®

- **Control:** Front panel buttons and USB from KDCam software

Accessories

- Qty 1: Power supply, 5V / 2A, 10W, Model KD-PS5V2ASC
- Qty 2: Mounting bracket (L-Bracket)
- Qty 1: 6ft Micro USB to USB A data cable (USB 2.0)
- Qty 1: 6ft USB 3.0 A to A cable

Quick Setup Guide

Begin with the KD-22HUCPRO, all source & display devices, audio system, and any other connected peripherals powered off.

Connect

1. **Video sources** connect into the HDM input ports.

2. **Video display / monitor** connect to the HDMI output port.

3. **Audio sources** connect into XLR and / or L/R ports. Use selection switch to select the desired audio source and to provide phantom power to a connected microphone.

4. **Audio output** connect into mixer or audio system using the L/R 3.5mm stereo port.

5. **Connect PC / recorder** using the USB 3.0 cable, connect from the AV Capture output into a USB 3.0 port on the PC / recorder. USB 2.0 cables and ports are not supported on the AV Capture output.

6. **Control / setup** connection is made from the USB Micro port labelled KDCam Control. Connect the USB A to Micro data cable to your PC.

7. **Connect power.** Screw-in power supply to the KD-22HUCPRO unit, then connect power to outlet.

8. **Power on** sources, displays, connected computer(s), and audio system

Connection Example:
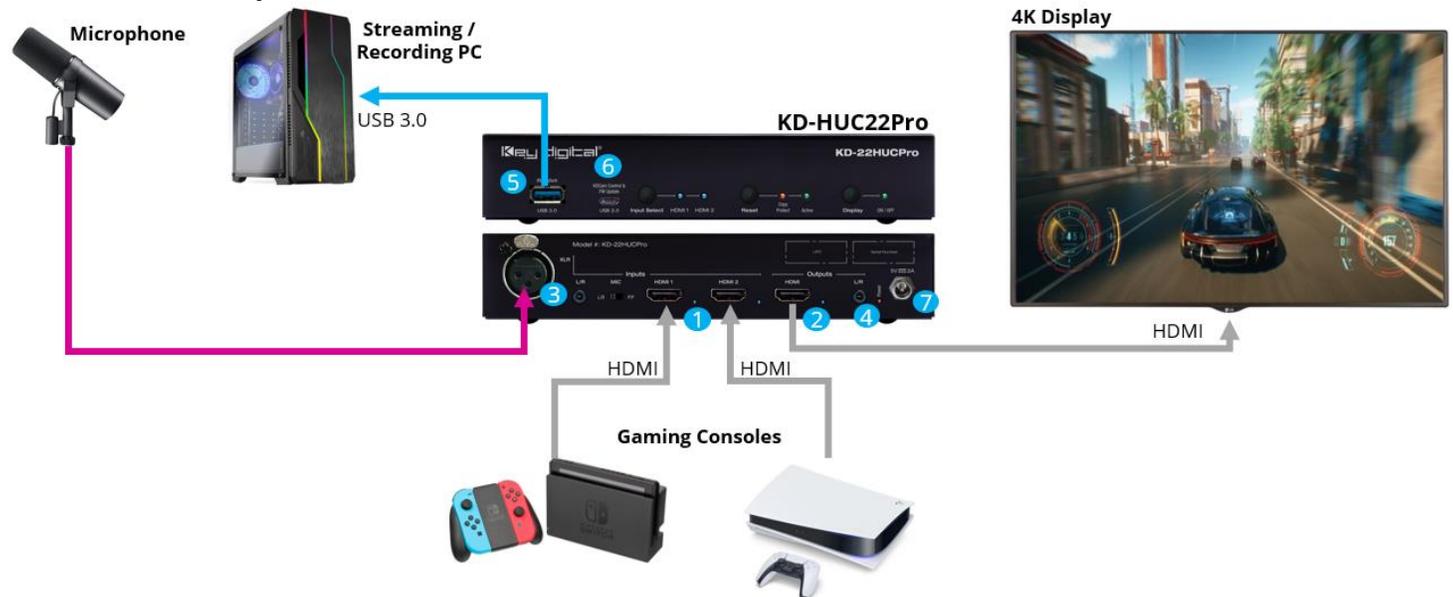
Configure

Configure KD-22HUCPRO with KD Cam Software. Download from the Windows Store

1. With KD-22HUCPro connected to the PC, open KDCam software
2. Press the **Settings** button in the top-left of the screen ⚙
3. Select the KD-22HUCPro from the **Device Selection** dropdown
4. Choose the desired HDMI source or enable auto-switching
5. Preview content from the selected HDMI source
6. Make desired audio level and volume settings
7. Power and control volume of your CEC supported TV and AV Receiver
8. Set the EDID handshake for the desired video resolution and audio format from the HDMI sources
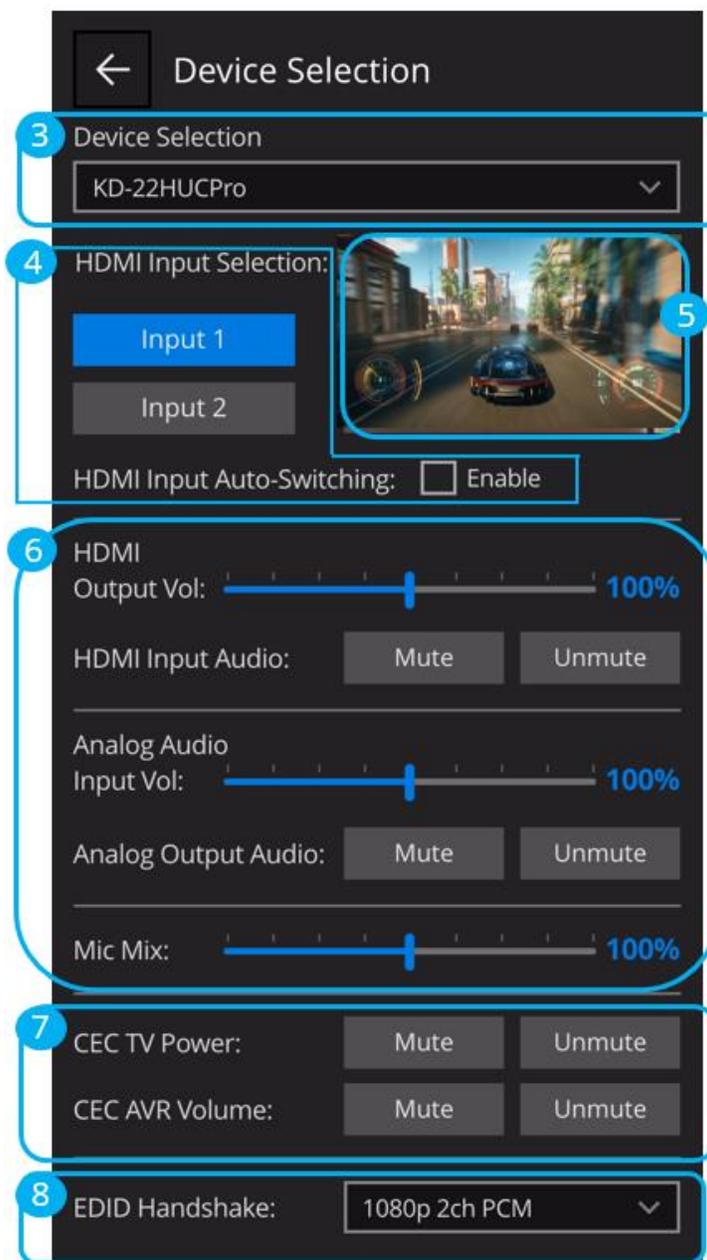
Capture

Use KD-22HUCPro to convert HDMI content to USB 3.0 and various software to capture (aka record or stream). Here are the steps for capturing based on popular uses.

Application: Capture with Video Conference Software

1. Open desired video conferencing software
2. Choose KD-22HUCPro as your webcam and start video to share content from the HDMI source
3. To share the audio of the HDMI source, ensure the KD-22HUCPro is the selected microphone

Optional: To share webcam plus KD-22HUCPRO captured content in Zoom™

1. Choose webcam and start video
2. Press Screen Share button
3. Choose Advanced
4. Select Content from 2nd Camera
5. Press Share to begin sharing content from the HDMI source
6. To share the audio of the HDMI source, ensure the KD-22HUCPro is the selected microphone

Zoom in to view details
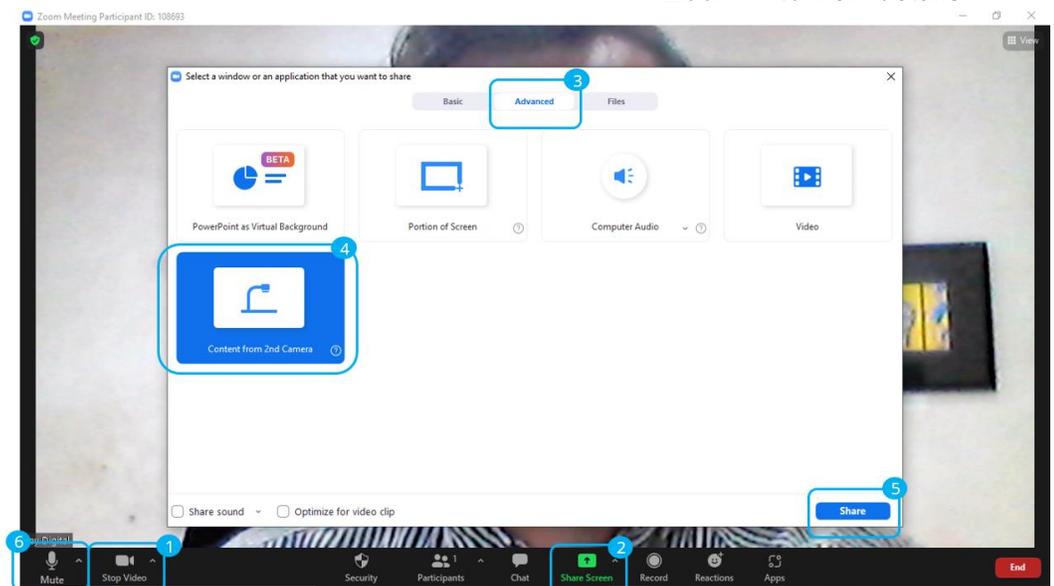
Application: Capture Gaming Content with Windows Game Bar & KDCam

1. Open **KDCam** to view gaming content
2. Choose the **Settings** button in the top-left of the screen
3. Select the KD-22HUCPro from the **Device Selection** dropdown
4. Choose **Hide Settings Button** to have a clean screen of the HDMI content
5. Exit the Settings menu
6. Double-click in the content window to enter full-screen preview mode of your HDMI content
7. Open **Windows Game Bar** with Windows + G key combo
8. Choose KD-22HUCPro as the selected microphone to capture mixed audio of the HDMI source and the microphone / audio input:
   a. Press **Audio** to open the audio settings panel
   b. Select **Voice**
   c. Select the KD-22HUCPro as the input device
9. **Record** by pressing the Record button or Windows + Alt + G key combo to start & stop
10. Press **Show all captures** to view the recordings. Or go to This PC: Local Disk (C:): Users: *User Name*: Videos: Captures
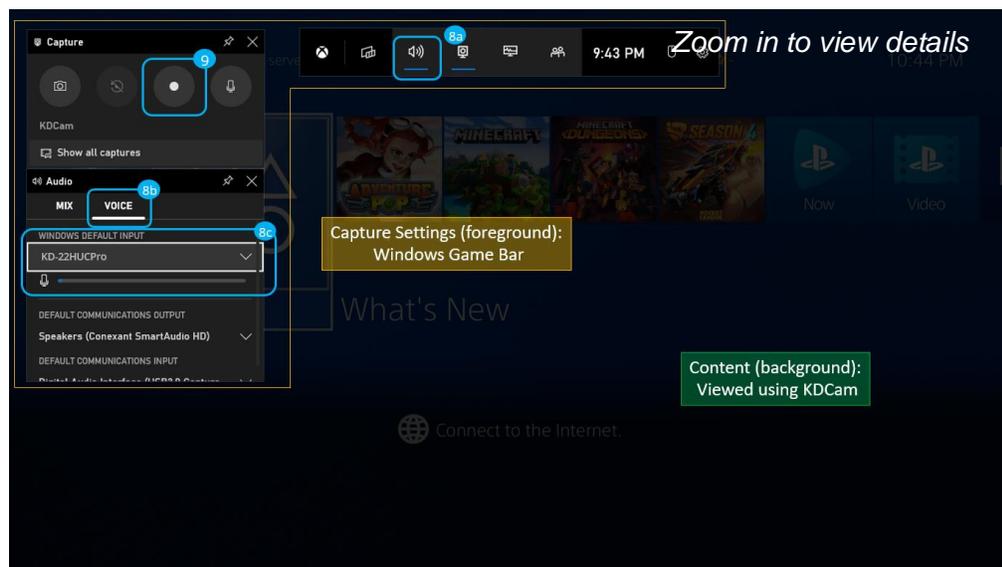
Application: Capture with OBS Studio

[OBS Studio](#) is a free software very popular because of its customizable layouts and ease of streaming to platforms like Twitch or your own website.

To add the captured video:

  a. In **Sources,** press "**+**"
  b. Choose **Video Capture Device**
  c. Enter desired name for the video signal from KD-22HUCPro
  d. Select USB Video from the **Device** dropdown

The HDMI content should now appear in the OBS studios software screen.
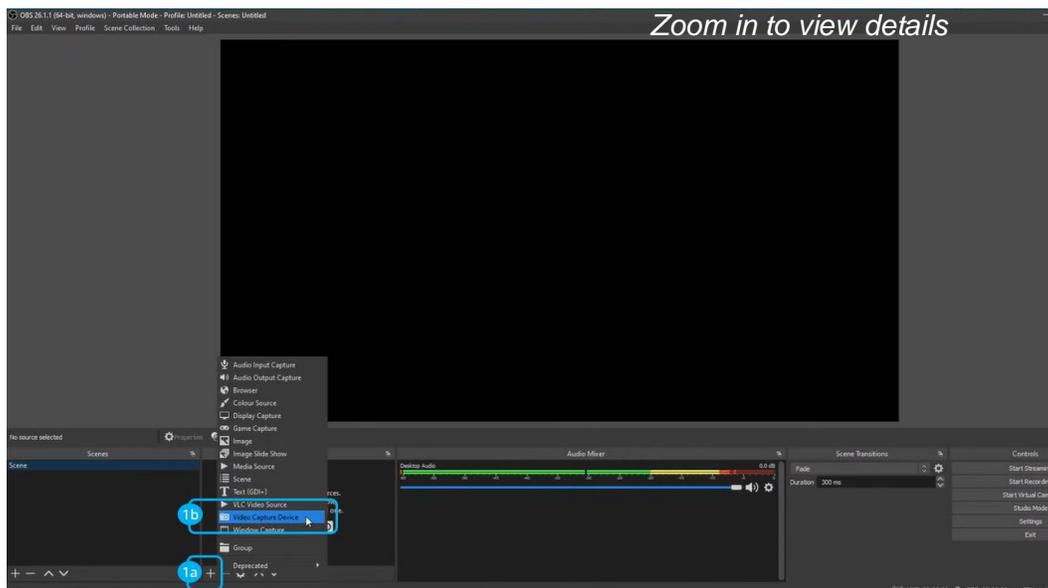
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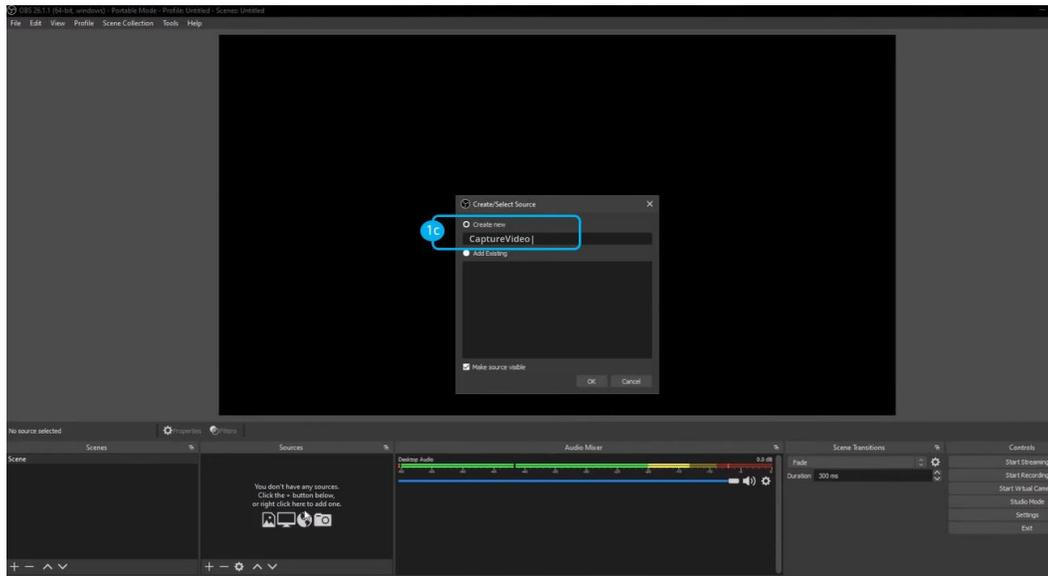
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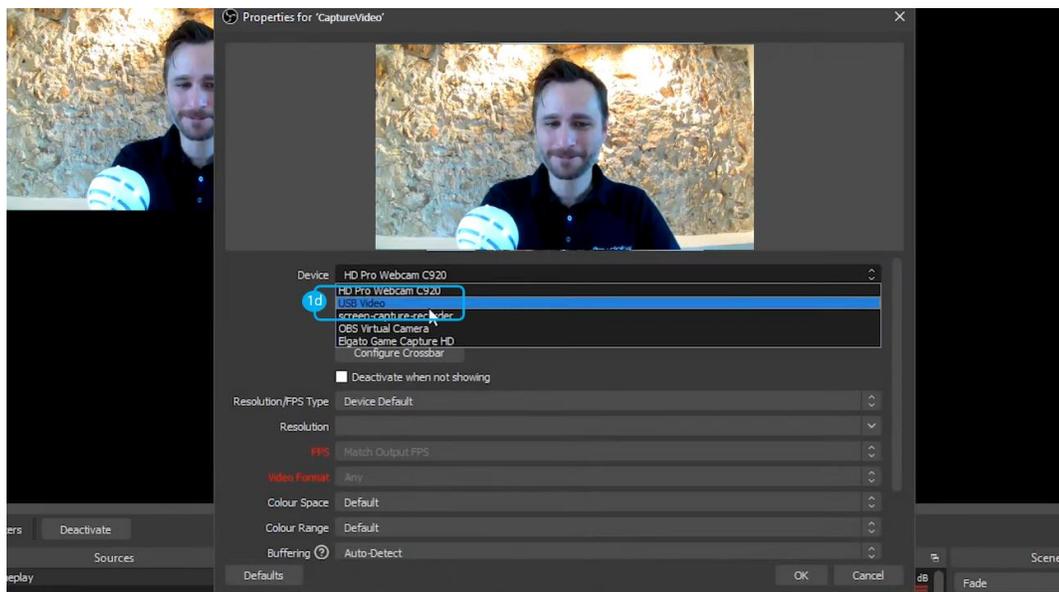
2. To add the captured audio:
   a. In **Sources,** press "**+**"
   b. Choose **Audio Input Capture**
   c. Enter desired name for the audio signal from KD-22HUCPro
   d. In **Properties for <*Audio Name*>**, choose USB Audio

The audio content should now appear in the **Audio Mixer** panel.

Zoom in to view details
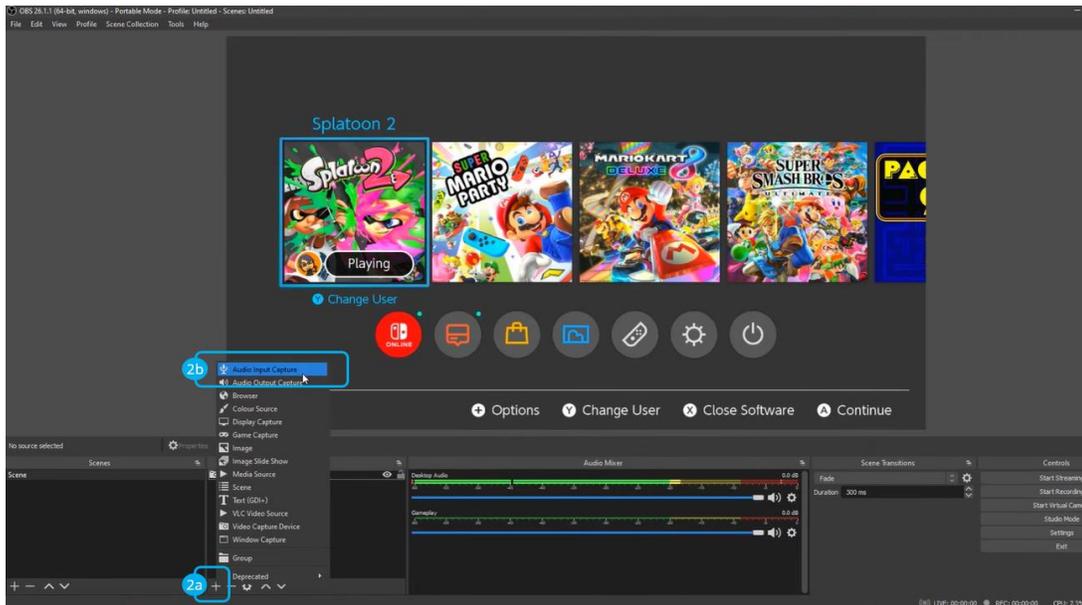
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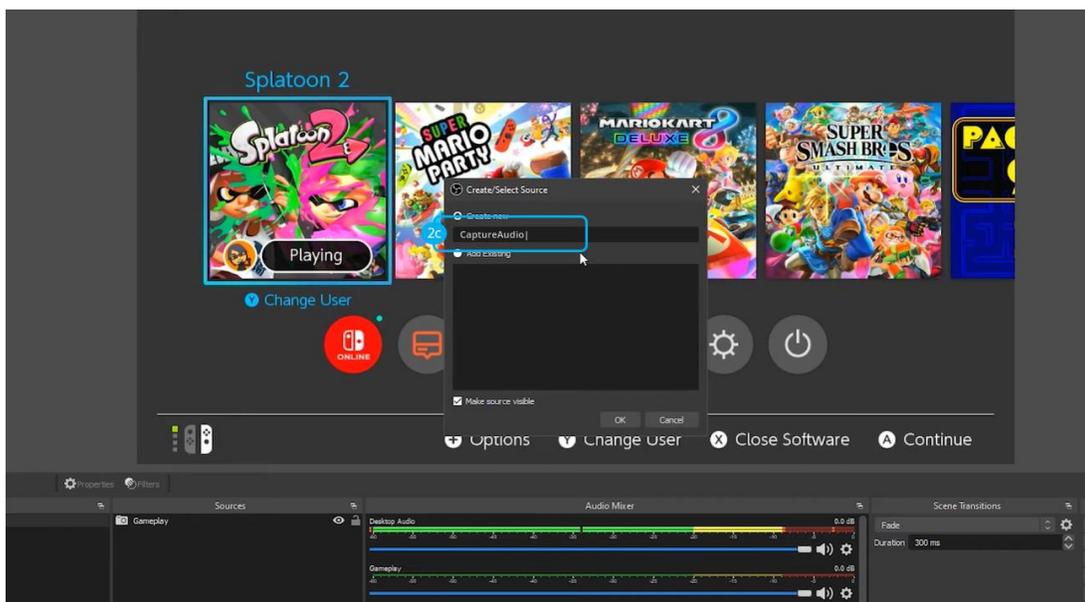
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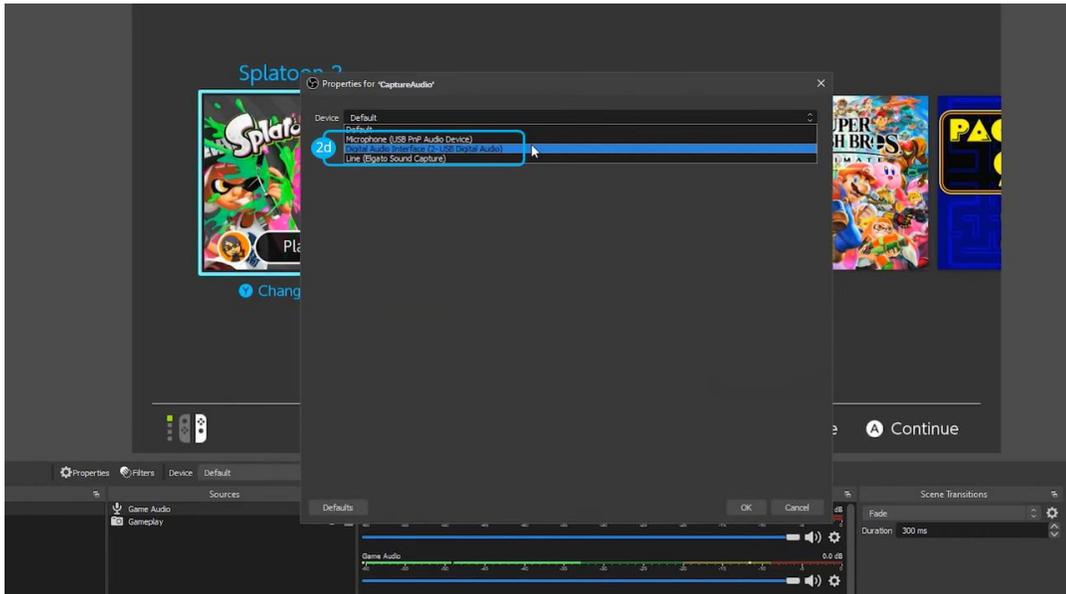
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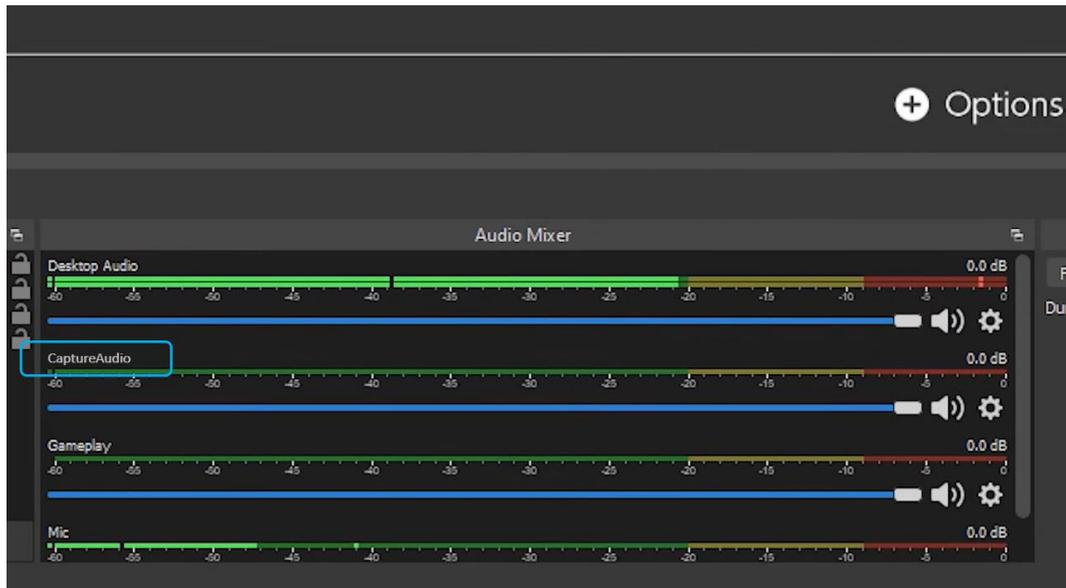
3. To send the captured audio to your streaming software:
   a. Right-click <***Audio Name***> audio track in the audio mixer
   b. Choose **Advanced Audio Properties**
   c. In the **Audio Monitoring** column, choose **Monitor and Output**

The audio should now be sent to your streaming service as well as your headphones or speakers

Zoom in to view details
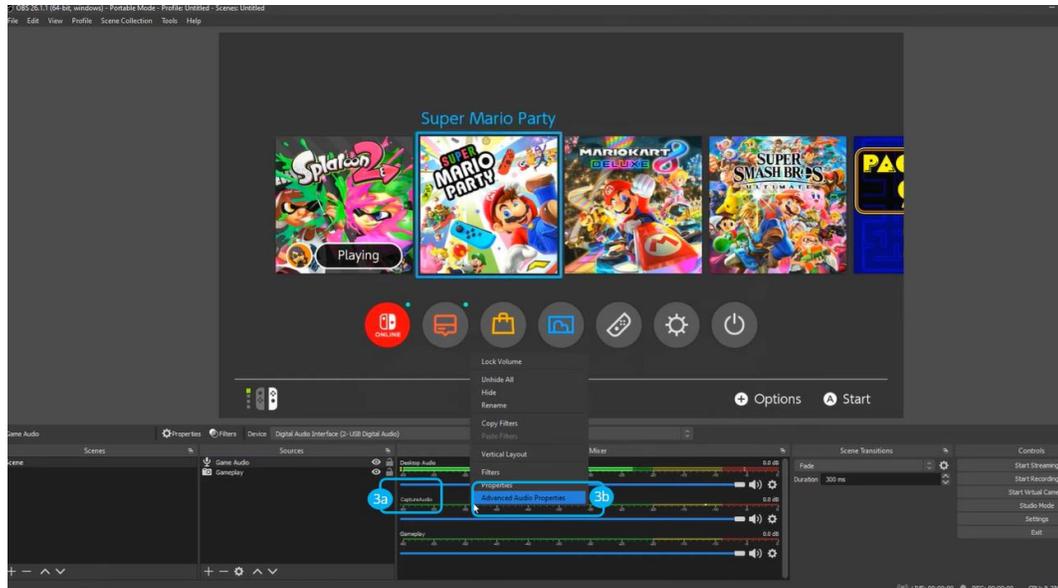
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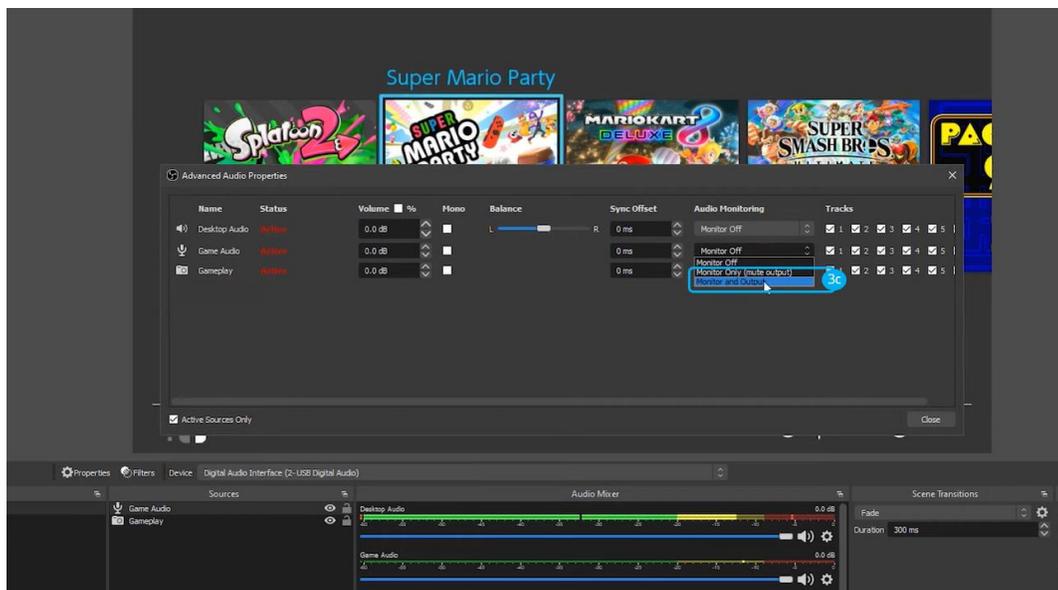
Application: Audio Capture & Record with Audacity

Optional: Use KDCam software to adjust audio mix levels if needed

1. Open Audacity or desired audio recording software.
2. Choose **KD-22HUCPro** from the Microphone dropdown
3. Choose to record in stereo (idea for music or multi-channel) or mono (ideal for single mic capture)
4. Press **Record** button
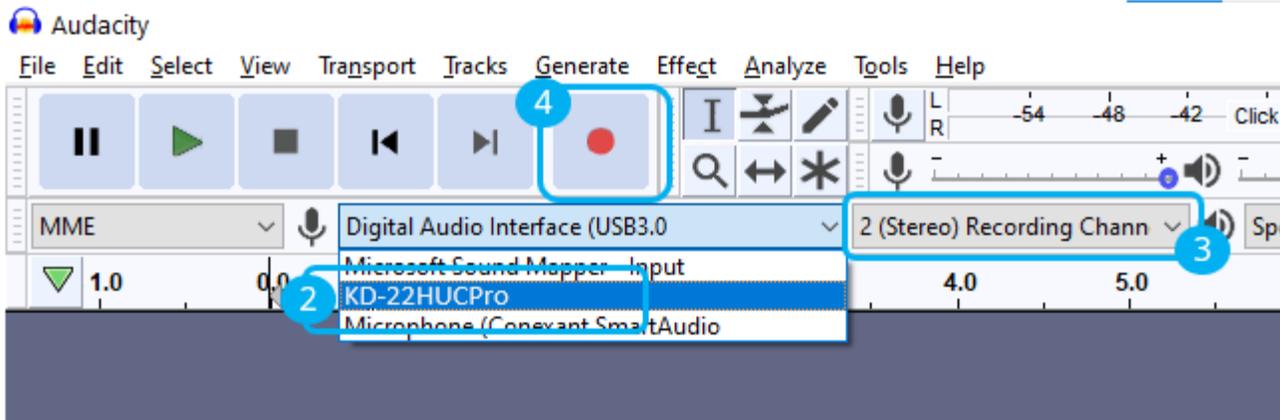
Product Warnings & Safety Instructions

⚠️ **Important Product Warnings:**

1. Connect all cables before providing power to the unit.

2. Test for proper operation before securing unit behind walls or in hard to access spaces.

3. If installing the unit into wall or mounting bracket into sheet-rock, provide proper screw support with bolts or sheet-rock anchors.

⚠️ **Safety Instructions:**

Please be sure to follow these instructions for safe operation of your unit.

1. Read and follow all instructions.

2. Heed all warnings.

3. Do not use this device near water.

4. Clean only with dry cloth.

5. Install in accordance with the manufacturer's instructions.

6. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

7. Only use attachments/accessories specified by the manufacturer.

8. Refer all servicing to qualified service personnel. Servicing is required when the device has been damaged in any way including:

   o Damage to the power supply or power plug

   o Exposure to rain or moisture

⚠️ **Power Supply Use:**

You MUST use the Power Supply provided with your unit or you VOID the Key Digital® Warranty and risk damage to your unit and associated equipment.
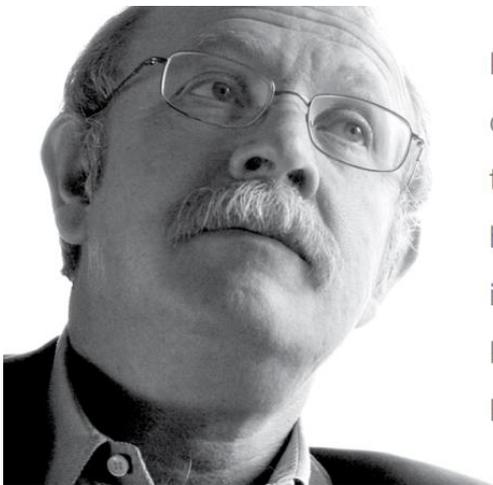
Key Digital®, led by digital video pioneer Mike Tsinberg, develops and manufactures high quality, cutting-edge technology solutions for virtually all applications where high-end video and control are important. Key Digital® is at the forefront of the video industry for Home Theater Retailers, Custom Installers, System Integrators, Broadcasters, Manufacturers, and Consumers.

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