



AC7912
2-Port HDMI 4K@60Hz KVM switch

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Manual

AC7912 | 2-Port HDMI 4K@60Hz KVM switch

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1.0 Introduction

Congratulations with the purchase of this high-quality ACT product! This product has undergone extensive testing by ACT's technical experts. Should you experience any problems with this product, you are covered by ACT warranty. Please keep this manual and the receipt in a safe place.

2.0 Packing contents

The following parts need to be present in the packing:

- AC7912 – 1 x 4K60 Single Monitor HDMI KVM Switcher
- 1x IR Remote
- 1 x 38KHz IR Wideband Receiver Cable (1.5 meters)
- 2 x USB Cable (USB 3.0, Type A to Type B, 1.8 meters)
- 2 x HDMI Cable (male to male, 1.5 meters)
- 2 x Mounting Ears
- 4 x Machine Screws (KM3*4)
- 1 x 12V/1A Power Supply
- Quick Install Guide

3.0 ACT 2-Port HDMI 4K@60Hz KVM switch

The ACT AC7912 2-port KVM HDMI switch can control two HDMI® computers with a single keyboard, mouse and monitor. It supports HDMI 2.0, is HDCP 2.3 compatible and supports resolutions up to 4K@60Hz 4:4:4 8 Bit. The built in USB-hub can transmit USB 3.0 up to 5Gbps. Direct switching between the two connected computers can be done with the buttons on the front panel, IR remote, hotkey through keyboard/mouse and RS-232.

4.0 Specifications

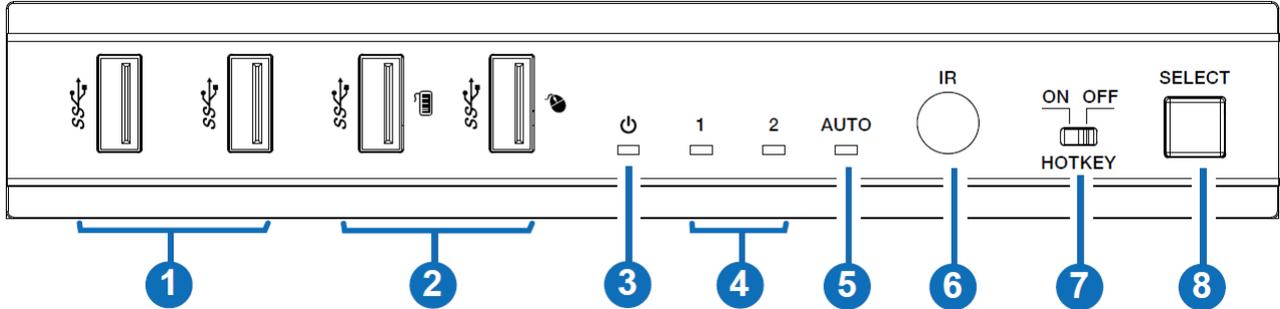
| Technical | |
|----------------------|---|
| HDMI Compliance | HDMI 2.0 |
| HDCP Compliance | HDCP 2.3 |
| Audio Latency | No Latency |
| Video Resolution | Up to 4K@60Hz, 2K@120Hz/144Hz, 1080P@240Hz |
| IR Level | 5Vp-p |
| IR Frequency | Fixed frequency 38KHz |
| Color Space | RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0 |
| Color Depth | 8/10/12bit |
| HDR | HDR, HDR10, HDR10+, Dolby Vision, HLG |
| HDMI IN / OUT | |
| Audio Formats | LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DTS:X, DSD L/R OUT: PCM 2.0CH |

| Connection | |
|---------------|--|
| Input Ports | 2 x HDMI input [Type A, 19-pin female] |
| Output Ports | 1 x HDMI output [Type A, 19-pin female] 1 x L/R audio output [3.5mm Stereo Mini-jack] |
| Control Ports | 1 x RS-232 [3pin-3.81mm phoenix connector] 1 x IR EXT [3.5mm Stereo Mini-jack] 2 x USB HOST [USB Type B] 4 x USB DEVICES [USB Type A] |

| Mechanical | |
|-----------------------|---|
| Housing | Metal Enclosure |
| Color | Black |
| Dimensions | 220mm [W] x 100mm [D] x 30mm [H] |
| Weight | 626 gram |
| Power Supply | Input: AC 100 - 240V 50/60Hz Output: DC 12V/1A |
| Power Consumption | Typical value: 7.2W Standby mode: 0.72W |
| Operation Temperature | 32 - 104°F / 0 - 40°C |
| Storage Temperature | minus 4 - 140°F / -20 - 60°C |
| Relative Humidity | - 90% RH (no-condensing) |

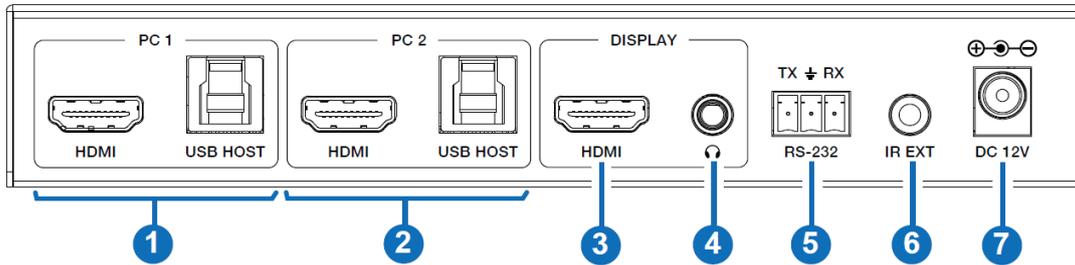
5.0 Operation Controls and Functions

5.1 Front panel



| No. | Name | Function Description |
|-----|----------------------------------|--|
| 1 | USB 3.0 ports | USB 3.2 Gen 1 device ports to connect USB 3.0 usb drive, camera, printer etc. |
| 2 | USB 3.0 ports (with hotkey mode) | <ul style="list-style-type: none"> ▪ When Hotkey switch is set to OFF mode these two ports support USB 3.2 Gen 1. ▪ When Hotkey switch is set to ON mode these two ports support USB 1.1 mouse and keyboard only. |
| 3 | Power LED | The Power LED will light green when the product is working, and red when the product is on standby. |
| 4 | Input channel LED 1/2 | When HDMI input port 1/2 is selected as signal input channel, the corresponding LED 1/2 will light in green. |
| 5 | AUTO LED | When the auto switching function is enabled, the AUTO LED will light in green, otherwise it will light off. |
| 6 | IR Window | IR signal receiving window. |
| 7 | HOTKEY switch | <p>Use the switch to enable/disable the hotkey switching mode.</p> <ul style="list-style-type: none"> ▪ Switch to "ON": The connected keyboard and mouse support hotkey switching mode. ▪ Switch to "OFF": The connected keyboard and mouse don't support hotkey switching mode. |
| 8 | SELECT button | Press the button to switch the input channel. |
| 9 | MODE button | Press the MODE button to switch between MODE 1/2. |
| 10 | SELECT button | Press the button to switch the input channel. |

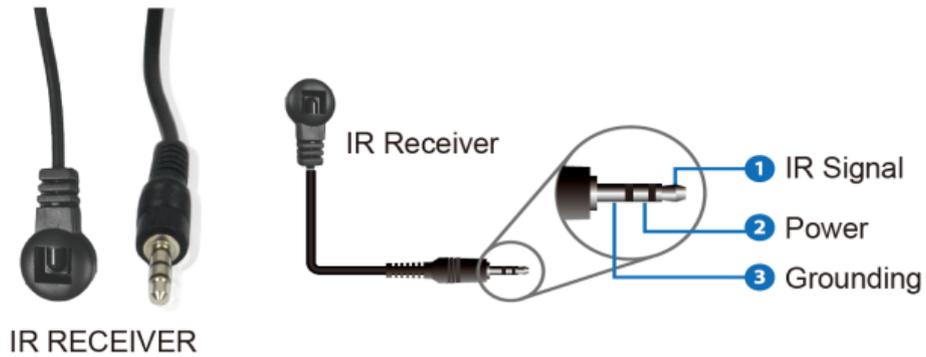
5.2 Rear panel



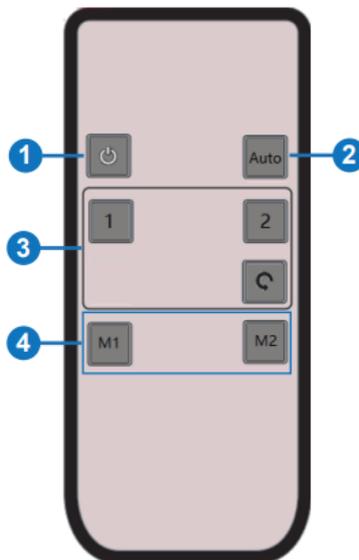
| No. | Name | Function Description |
|-----|-------------------|--|
| 1 | PC 1 ports | HDMI: HDMI signal input port, connected to HDMI source device such as PC with HDMI cable. USB HOST: USB Host port, connected to PC 1. It can be used for firmware upgrade. |
| 2 | PC 2 ports | HDMI: HDMI signal input port, connected to HDMI source device such as PC with HDMI cable. USB HOST: USB Host port, connected to PC 2. |
| 3 | DISPLAY HDMI port | HDMI signal output port, connected to HDMI display device such as TV or Monitor with HDMI cable. |
| 4 | L/R audio port | 3.5mm analog audio output port. |
| 5 | RS-232 port | 3-pin phoenix connector, RS-232 serial port control and firmware upgrade. |
| 6 | IR EXT port | IR signal receiving port, connected with 38KHz IR Receiver cable (included). If the IR signal receiving window of the unit is blocked or the unit is installed in a closed area out of infrared line of sight, the IR receiver cable can be inserted to the "IR EXT" port to receive the IR remote signal. |
| 7 | DC 12V | DC 12V/1A power input port. |

5.3 IR Pin Definition

IR Receiver pin definition is as below:



5.4 IR Remote



- ① **Power on or Standby:** Press this button to power on the switcher or set it to standby mode.
- ② **Auto:** Press this button to enable/disable the auto switching function.
- ③ **1/2:** Press 1/2 button to select the HDMI input port 1/2 as the input channel, and the corresponding channel LED on the front panel will light in green.
- 🔄: Press this button to cyclically switch the input channel.
- ④ **M1/2:** Press M1/2 button to select MODE 1/2.

6.0 Hotkey Function

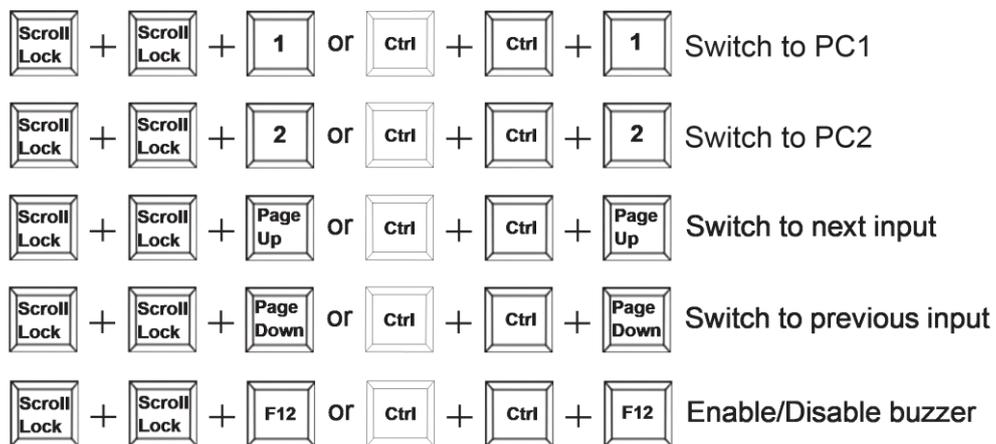
The Hotkey switch on the front panel allows you to enable/disable the hotkey switch function.

- When Hotkey switch is in OFF mode, the hotkey switch function is disabled and the two USB 3.0 ports (with hotkey mode) support USB 3.2 Gen 1.
- When Hotkey switch is in ON mode, the hotkey switch function is enabled and the two USB 3.0 ports (with hotkey mode) only support USB 1.1 mouse and keyboard which can be used for hotkey switching.

7.0 Keyboard & Mouse Hotkey Function

When the hotkey mode is enabled you can use keyboard and mouse hot keys to operate and control the AC7912.

7.1 Keyboard Hotkeys



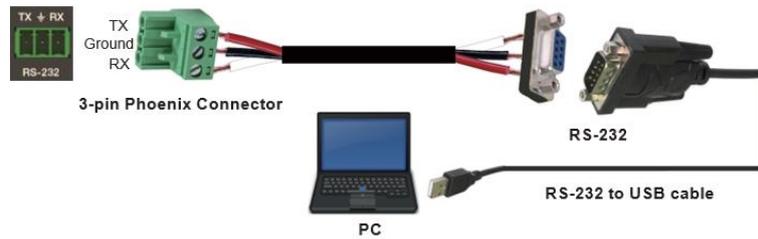
7.2 Mouse Hotkeys

Double-click middle-right (double-click the mouse scroll wheel, and then click the right button): Switch to next input

Double-click middle-left (double-click the mouse scroll wheel, and then click the left button): Switch to previous input

8.0 ASCII Commands

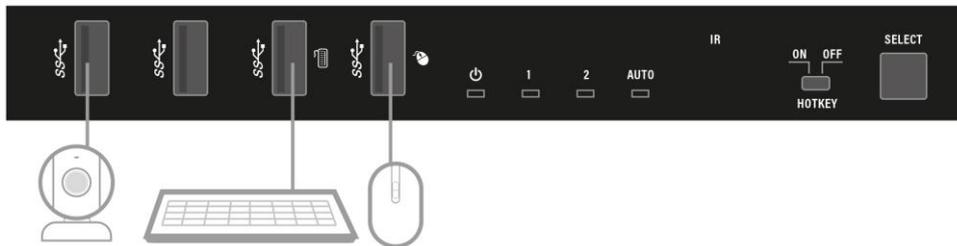
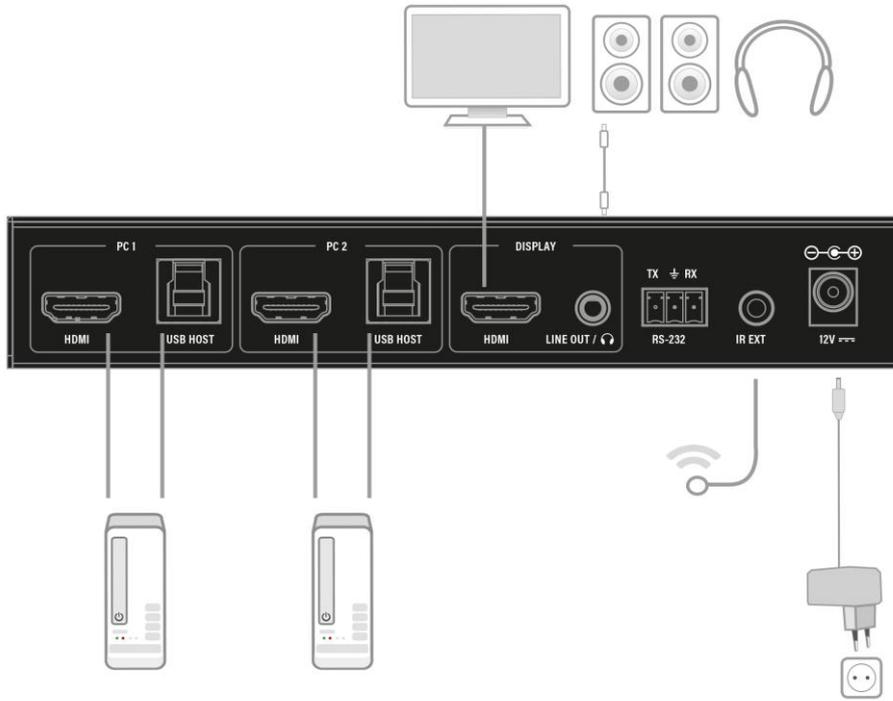
The AC7912 also supports ASCII commands control. Connect the RS-232 port of the product to a PC with a 3-pin phoenix connector cable and a RS-232 to USB cable. The connection method is as following;



Use a Serial Command tool program on a PC to send ASCII commands to control the AC7912. The ASCII command list is shown as below;

| ASCII Commands | | | | |
|--|--|----------------------------|---|----------------------------|
| Serial port protocol. Baud rate: 115200 (default), Data bits: 8, Stop bits:1, Check bit: 0 | | | | |
| x - Parameter 1 z - Parameter 2 ! - Delimiter | | | | |
| Command Code | Function Description | Example | Feedback | Default Setting |
| help! | List all commands | help! | | |
| status! | Get device current status | status! | | |
| r type! | Get device model | r type! | 2x1 kvm hdmi2.1 switcher | |
| r fw version! | Get firmware version | r fw version! | mcu fw version: vx.xx.xx kvm fw version: vx.xx.xx | |
| power z! | Power on/off the device (z=0~1) 0. power off 1. power on | power 1! | power on | |
| r power! | Get current power state | r power! | power on | |
| reboot! | Reboot the device | reboot! | reboot... | |
| reset! | Reset to factory defaults | reset! | reset to factory defaults | |
| s output 1 stream x! | Set output 1 stream enable/ disable (x=0~1) 0. disable output stream 1. enable output stream | s output 1 stream 1! | output 1 stream: enable | output 1 stream: enable |
| r output 1 stream! | Get output 1 stream status | r output 1 stream! | output 1 stream: enable | |
| s auto switch x! | Enable/disable auto switch feature (x=0~1) 0. disable auto switch 1. enable auto switch | s auto switch 1! | auto switch: enable | auto switch: enable |
| r auto switch! | Get auto switch feature | r auto switch! | auto switch: enable | |
| s output 1 in source x! | Route input x source to output 1 (x=1~2) 1.input 1 2.input 2 | s output 1 in source 1! | output1->input1 | |
| r output 1 in source x! | Get output 1 selected input source | r output 1 in source! | output1->input1 | |
| s beep z! | Enable/disable buzzer function (z=0~1) 0. beep off 1. beep on | s beep 1! | beep on | beep off |
| r beep! | Get buzzer state | r beep! | beep on | |

9.0 Setup Example



10.0 Service and support

This user manual has been carefully written by ACT's technical experts. If you have problems installing or using the product, please check the **support** link at the website www.act-connectivity.com.

11.0 Warning and points of attention



Due to laws, directives and regulations set out by the European parliament, some (wireless) devices could be subject to limitations concerning its use in certain European member states. In certain European member states the use of such devices could be prohibited. Contact your (local) government for more information about this limitations.

Always follow up the instructions in the manual*, especially where it concerns devices which need to be assembled.

Warning: In most cases this concerns an electronic device. Wrong/improper use may lead to (severe) injuries!

When you connect the device to the mains, make sure it will not be damaged or subject to (high) pressure.

A power socket is needed which should be close and easy accessible from the device.

Repairing of the device should be done by qualified ACT staff. Never try to repair the device yourself. The warranty immediately voids when products have undergone self-repair and/or by misuse. For extended warranty conditions, please visit our website at www.act-connectivity.com

Dispose of the device appropriately. Please follow your countries regulation for the disposal of electronic goods.

Please check below safety points carefully:

- Do not apply external force on the cables
- Do not unplug the device by pulling the power cable
- Do not place the device near heating elements
- Do not let the device come in contact with water or other liquids
- If there is any strange sound, smoke or odor, remove the device immediately from the power outlet.
- Do not put any sharp objects into the venting hole of a product
- Do not use any damaged cables (risk of electric shock)
- Keep the product out of reach of children
- Wipe off the product with soft fabric, not water mop.
- Keep the power plug and outlet clean
- Do not unplug the device from the power outlet with wet hands
- Unplug the device when you don't use it for a long time
- Use the device at a well ventilated place

**Tip: ACT manuals are written with great care. However, due to new technological developments it can happen that a printed manual does not longer contain the most recent information. If you are experiencing any problems with the printed manual or you cannot find what you are looking for, please always check our website www.act-connectivity.com first for the newest updated manual.*

*Frequently asked questions (FAQ). Consult **support** on our website www.act-connectivity.com and see if you can find the right information about your product here. It is highly advisable to consult the FAQ section first, the answer is often here.*

12.0 Warranty conditions

The ACT warranty applies to all ACT products. After buying a second-hand ACT product the remaining period of warranty is measured from the moment of purchase by the product's initial owner. ACT warranty applies to all ACT products and parts, indissolubly connected or mounted to the product it concerns. Power supply adapters, batteries, antennas and all other products not directly integrated in or connected to the main product or products of which, without reasonable doubt, can be assumed that wear and tear during use will show a different pattern than the main product, are not covered by the ACT warranty. Products are not covered by the ACT warranty when exposed to incorrect/improper use, external influences or when opening the service parts of the product by parties other than ACT. ACT may use refurbished materials for repair or replacement of your defective product. ACT cannot be held responsible for changes in network settings by internet providers. We cannot guarantee that the ACT networking product will keep working when settings are changed by the internet providers. ACT cannot guarantee the working of web services, apps and other third party content that is available through ACT products

When my product gets defective

Should you encounter a product rendered defective for reasons other than described above: Please contact your point of purchase for taking care of your defective product.

