D-BOX

HAPTIC PROCESSOR R300

USER GUIDE

242-914-0001-EN1 – March 2020

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LIMITATION OF LIABILITY

TABLE OF CONTENTS

INTRODUCTION

CAVEAT: READ THIS GUIDE CAREFULLY BEFORE PROCEEDING WITH THE INSTALLATION.

The purpose of this guide is to provide detailed instructions about installing and using the D-BOX R300 Haptic Processor (HP-R300).

The following sign indicates an installation tip:

Read this guide before installing the equipment and keep it in a safe place.

Check you have all the equipment required to proceed with the installation. Contact D-BOX if any equipment is missing.

SAFETY INSTRUCTIONS

Failure to comply with the following safety instructions can result in injuries to people or damage to equipment:

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Do not use this device near water.

6. Only clean the device with a dry cloth.

7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

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

9. Protect the USB cord from being walked on or pinched, particularly at the ends.

10. Use only attachments/accessories specified by the manufacturer.

11. Unplug this device during electrical storms or when unused for long periods of time.

12. Refer all servicing to qualified personnel. Servicing is required when the device has been damaged in any way. For example: If liquid has been spilled or objects have fallen onto it, if it has been exposed to rain or moisture, if it does not operate normally or, it has been dropped.

WARNING: To reduce the risk of fire or electric shock, do not expose this device to rain or moisture.

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of enough magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

This symbol indicates that you must communicate with the manufacturer for disposal of the equipment.

REGULATORY COMPLIANCE STATEMENTS

FCC REGULATORY COMPLIANCE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: 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 instructions, 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 correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Warning: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

RF Exposure Compliance

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

D-BOX

Supplier's Declaration of Conformity

47 CFR § 2.1077 Compliance Information

Unique Identifier Trade Name: D-BOX Technologies Inc., Model No.: HP-R300
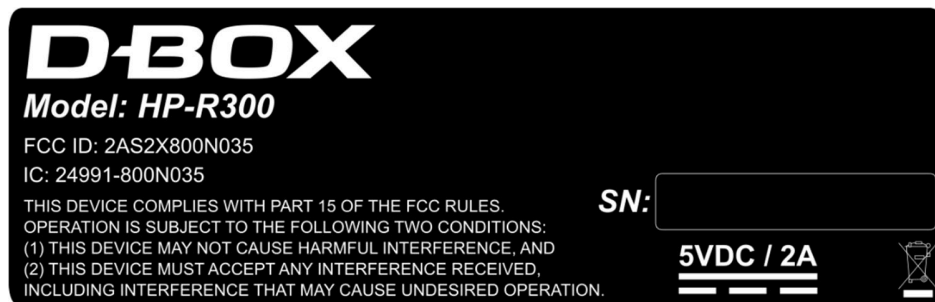
Responsible Party – U.S. Contact Information

D-BOX Technologies Inc.

2172 Rue de la Province, Longueuil, Quebec J4G 1R7 Canada

1-450-442-3003

FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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ISED REGULATORY COMPLIANCE

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s).

Operation is subject to the following two conditions:

1.   This device may not cause interference.

2.   This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1.   L'appareil ne doit pas produire de brouillage;

2.   L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

Cet équipement est conforme aux limites d'exposition aux radiations IC CNR-102 établies pour un environnement non contrôlé. Cet émetteur ne doit pas être situé ou fonctionner conjointement avec une autre antenne ou un autre émetteur. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.

CAN ICES-3 (B)/NMB-3(B)

SPECIFICATIONS

- Dimensions: 10.5 cm x 7.5 cm x 3.5 cm
- Weight: 100 grams
- Color: Black
- Network Connection: Wi-Fi 802.11 b/g/n or Ethernet 10/100 LKAN
- Power: 5VDC, 2A
- Motion Output: USB, 4 ports on the side panel
- Input connection*: 3.5 mm [1/8 in] audio jack
- Input format*: Analog stereo downmix - from source material encoded in 5.1, 6.1, 7.1, etc.
- Connectivity to motion recliners: KAI-1P or KCU via USB

*The device can also be connected via an external converter that accepts Coaxial Audio, Toslink or HDMI connections. Contact your D-BOX sales representative to order this item or you may purchase it from a third party.

Figure 1 HP-R300

BOX CONTENT

- D-BOX Haptic Processor R300
- Power supply
- Quick Start Guide
- Warranty Statement

HP-R300 FUNCTIONS

WHAT TO EXPECT

- Supports audio streaming from any source - providing D-BOX encoding is available for the viewed content - including: DVD/Blu-ray players, Netflix, ChromeCast, YouTube, Apple TV, etc.
- Supports connection to multiple D-BOX enabled motion chairs.
- Automatically updates firmware and its motion codes via internet.
- For audio synchronization and motion playback, the HEMC software:
    - Identifies a movie for the first time within 25 to 29 seconds
    - Identifies the last 10 movies played within 5 seconds
    - Resynchronize after a trick play operation - forward, rewind, play/pause - within 5 seconds

ENGLISH D-BOX MOTION CODES AND OTHER LANGUAGES

The HP-R300 stores English Motion Codes only. However, it includes a parameter called "Recognition Tolerance" that allows the device to keep its synchronization with foreign language movies. Increasing this value allows the HP-R300 to have a better audio recognition for foreign languages. The HP-R300 synchronizes based on the language detected.

AUDIO SIGNAL REQUIREMENT

You need an analog stereo downmix that carries all channels of the playing soundtracks. The HP-R300 is very efficient even if the audio stream isn't optimal; it still works, but its performance is affected. To test if your audio feed going into the HP-R300 is good, simply replace the HP-R300 with a headphone/headset, using a female-to-female audio jack 3.5mm coupler (1/8 inch) audio jack. If you don't hear a good clear sound or channels are missing - no voice - you'll know that the audio stream is not converted properly. If this is the case, please contact info@d-box.com.

HP-R300 SETUP

HARDWARE

1. Carefully unbox your HP-R300 and remove it from the plastic bag.

2. Please read the online Terms and Conditions before breaking the seal on the box containing your cables. Read and keep all documents contained in the cable box.

3. Plug the USB cable from the KAI-1P or KCU into the port at the back of the HP-R300 - KAI-1P and KCU sold separately.

4. Connect your motion platform to your KAI-1P or your KCU - see details on page TBD.

5. Connect an analog stereo downmix audio source from your home theatre A/V source (output) to the HP-R300 3.5 mm (1/8 inch) audio-in port. It can also be connected via an external converter that accepts Coaxial Audio, Toslink or HDMI connections - see suggested converters on page TBD.

6. Connect the power cord and AC adaptor. Plug the power cord into an electrical outlet.
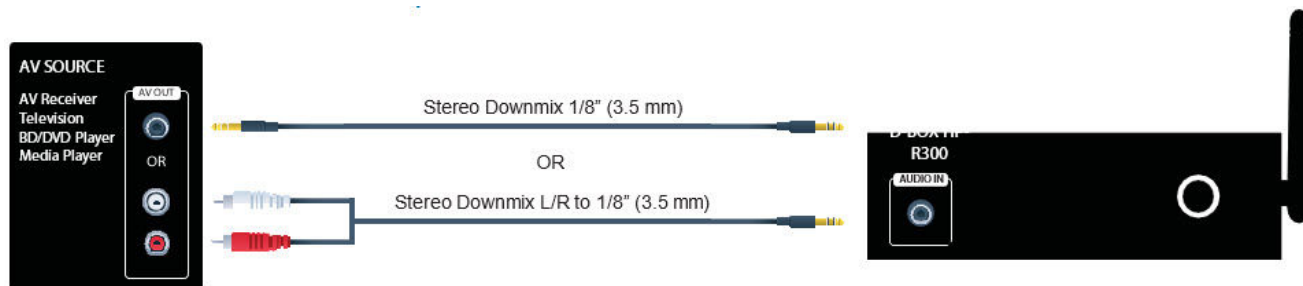
7. Power up the HP-R300.

COOLING

It is normal for the device to heat up. Allow some space above the device for proper heat dissipation.
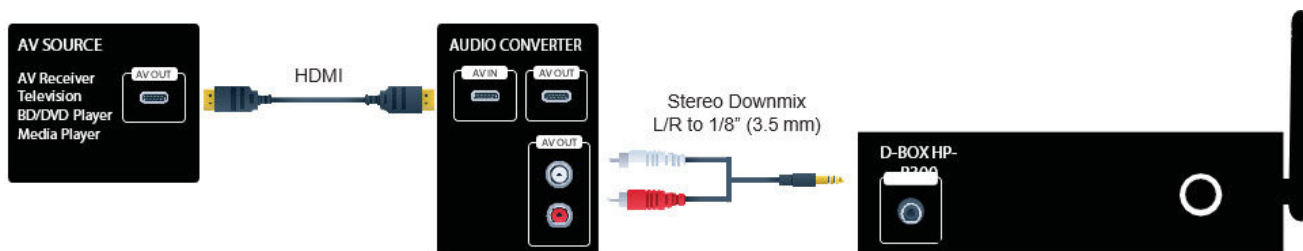
AUDIO WIRING DIAGRAM

RECOMMENDED CONNECTION SETUP

Connect the analog Stereo Downmix output from any AV source to the HP-R300's stereo 1/8" audio IN.

ALTERNATE HDMI CONNECTION SETUP

Connect the HDMI OUT from your AV source to the Atlona HDMI Multichannel to 2CH converter* and output a Left/Right downmix to the HP-R300. Note that with this converter, you can use the HDMI pass through to connect to your TV.

ALTERNATE OPTICAL OR COAXIAL CONNECTION SETUP

Connect the Optical or Coaxial OUT from your AV source to the Cypress Universal Digital/Analog Audio Converter*. Note that with this converter, you can use the Optical or Coaxial pass through to connect to your TV.

*Tested and suggested converter.
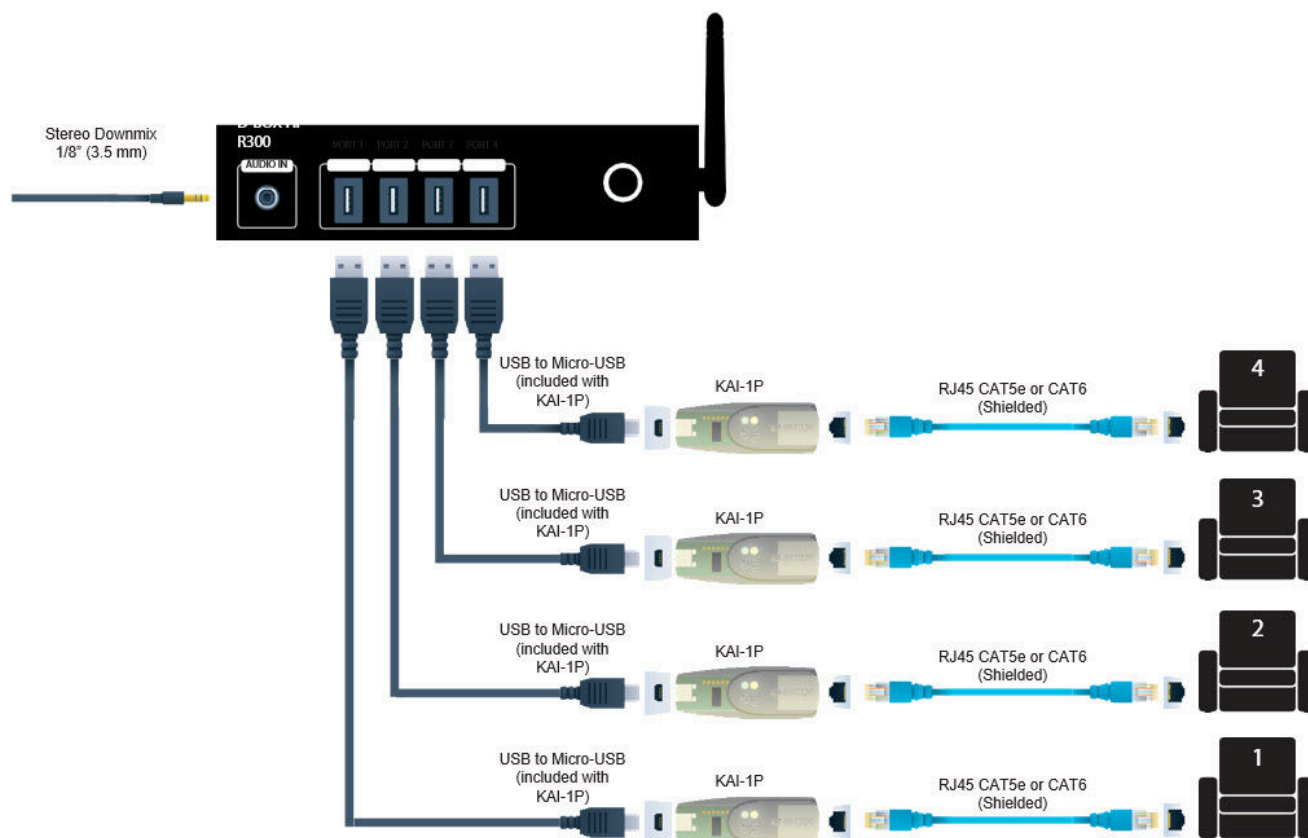
RECLINERS WIRING DIAGRAM

SETUP FOR 1 TO 4 RECLINERS

Plug one KAI-1P between each D-BOX seat and the HP-R300.

D-BOX STRONGLY ADVISES AGAINST NETWORKING MORE THAN 4 KAI-1P WITH THE HP-R300.
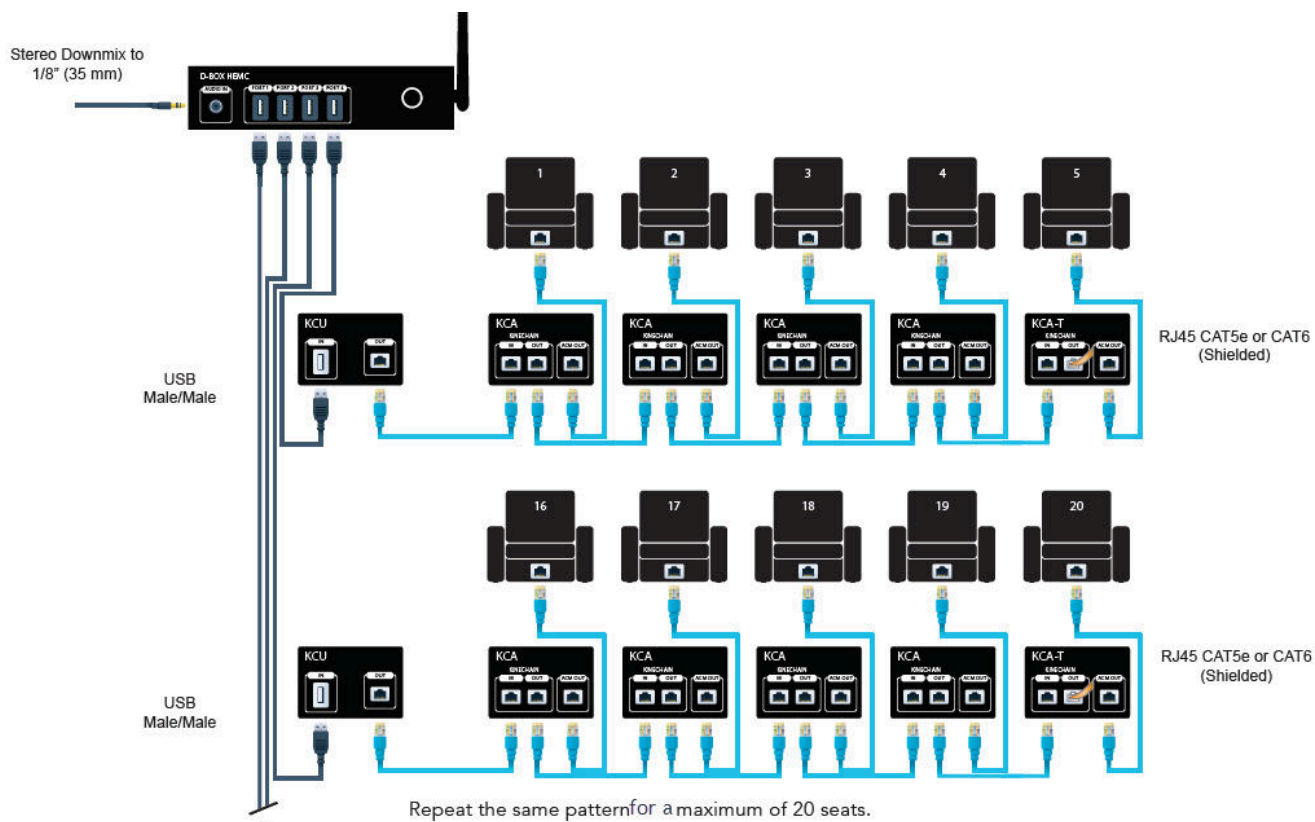
2- D-BOX STRONGLY ADVISES AGAINST USING A USB HUB WITH THE HP-R300.

3- IN BOTH CASES, D-BOX DOES NOT OFFER SUPPORT SERVICE.

SETUP FOR 5 TO 20 RECLINERS

You can plug up to four D-BOX KCU to the HP-R300. Connect the first KCA into the KCU, then daisy chain the remaining KCAs. The last KCA in a chain must be a KCA-T.

START-UP AND SPLASH SCREEN

WIRED NETWORK CONFIGURATION

1. Connect your tablet to the same router as your HP-R300.

2. The HEMC app detects your HP-R300 automatically.

UPDATING THE HP-R300 SOFTWARE

UPDATING THE HP-R300 FIRMWARE AND MOTION CODES

The firmware and the Motion Codes library are updated automatically from a remote server. Be sure to always have your HP-R300 connected to your internet network. The update does not disturb your current movie viewing and uploads while you are watching a movie. However, the installation takes place only if your HP-R300 is idle for one hour or the next time you turn it ON.

UPDATING THE D-BOX HEMC APP

When a new version of the D-BOX HEMC app is released, download the appropriate app for your operating system.

• Android: Google Play (https://play.google.com/store/apps/details?id=com.dbox.hemc_control_app).

• iPad: Apple's App Store (https://itunes.apple.com/ca/app/d-box-hemc/id931473554).

• Windows: The D-BOX HEMC website (http://hemc.d-box.com/).

D-BOX

Business hours: Monday to Friday9:00 a.m. to 5:00 p.m., EST

Customer Support: 1-844-877-3269

info@d-box.com