INSTRUCTION MANUAL

SB-5610

HDMI Audio Extractor/ARC/SPDIF/Analog Stereo Control Box



SHINYBOW™USA

MULTIMEDIA AUDIO AND VISUAL

SAFETY INFORMATION

1. To ensure the best results from this product, please read this manual and all other documentation before operating your equipment. Retain all documentation for future reference.
2. Follow all instructions printed on unit chassis for proper operation.
3. To reduce the risk of fire, do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
4. Make sure power outlets conform to the power requirements listed on the back of the unit. Keep unit protected from rain, water and excessive moisture.
5. Do not attempt to clean the unit with chemical solvents or aerosol cleaners, as this may damage the unit. Dust with a clean dry cloth.
6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
7. Do not force switched or external connections in any way. They should all connect easily, without needing to be forced.
8. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
9. AC voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection to improper AC voltage is not covered by any warranty.
10. Turn power off and disconnect unit from AC current before making connections.
11. Never hold a power switch in the “ON” position.
12. This unit should be installed in a cool dry place, away from sources of excessive heat, vibration, dust, moisture and cold. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
13. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically “blown free” of foreign dust and matter.
14. To reduce the risk of electric shock, do not remove the cover. There are no user serviceable parts inside. Refer all servicing to qualified service personnel. There are no user serviceable parts inside.
15. When moving the unit, disconnect input ports first, then remove the power cable; finally, disconnect the interconnecting cables to other devices.
16. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
17. The equipment power cord should be unplugged from the outlet when left unused for a long period of time.
18. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
19. Service Information Equipment should be serviced by qualifier service personnel when:
    A. The power supply cord or the plug has been damaged.
    B. Objects have fallen, or liquid has been spilled into the equipment.
    C. The equipment has been exposed to rain
    D. The equipment does not appear to operate normally, or exhibits a marked change in performance
    E. The equipment has been dropped, or the enclosure damaged.

TABLE OF CONTENTS

HDMI HIGH QUALITY ARC/SPDIF/AUDIO Series

Thank you for purchasing the SB-5610 HDMI To HDMI-ARC-SPDIF-AUDIO Extractor Control Box. You will find this unit easy to install and highly reliable but it is essential that you read this manual thoroughly before attempting to use ARC Control Box & Extractor.

CONTENTS

INTRODUCTION 1
FEATURES & SPECIFICATIONS 2
RS-232 PROTOCOL.....3
TYPICAL HOOK-UP & OPERATION 4
LIMITED WARRANTY 5

INTRODUCTION

The SB-5610 is the high quality HDMI ARC Control Box with HDMI Audio Extractor. Audio are ARC, DVD Source SPDIF and Analog stereo, This control Box can link audio (ARC or Source SPDIF) to TV or Audio Amplifier and turn ON or turn OFF the TV or Audio Amplifier speaker. The Audio Extractor support HDMI Repeater and Equalizer between HDMI player and display. SB-5610 supports HDMI 1.3a, 1.3c(CTS), HDCP 2.0 and DVI 1.0 compliant HDMI 1.4a, 3D formats. Audio support PCM 2-channel IIS/DSD, SPDIF and HDMI outputs, Video support 36 bit Deep Color up to 1080p-60 (225 Mhz). This device allows you to extract analog audio LPCM2 and digital audio SPDIF from the HDMI signal while still sending the original audio video signal to your HD devices. When using a display without speakers you can still extract the analog audio to external speakers or digital audio to an Amplifier.

PACKAGE CONTENTS

Check that you have the following components;

- SB-5610 Switcher
- Users Guide
- AC/DC Adapter: 12VDC,@1A~1.25A

SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

DISCLAIMERS

The information in this manual has been carefully checked and is believed to be accurate. We assume no responsibility for any infringements of patents or other rights of third parties which may result from its use.

We assume no responsibility for any inaccuracies that may be contained in this document. We make no commitment to update or to keep current the information contained in this document.

We reserve the right to make improvements to this document and/or product at any time and without notice.

COPYRIGHT NOTICE

No part of this document may be reproduced, transmitted, transcribed, stored in a retrieval system, or any of its part translated into any language or computer file, in any form or by any means — electronic, mechanical, magnetic, optical, chemical, manual, or otherwise — without express written permission and consent

© Copyright 2015. All Rights Reserved.

Version 2.0 JUNE 2015

TRADEMARK ACKNOWLEDGMENTS

All products or service names mentioned in this document may be trademarks of the companies with which they are associated.

FEATURES & SPECIFICATIONS

FEATURES

- HDMI ARC Control Box with Source SPDIF and analog Audio Extractor
- HDMI 1.3a, HDMI 1.3c (CTS), DVI 1.0 and HDCP compliant
- Support HDMI in/out Repeater with Equalizer
- Support 3D Video Format in HDMI 1.4
- Supports SD/HD Digital Audio 2-Channel IIS/DSD and SPDIF Audio
- Supports 12bits HDMI Deep Color up to 1080p(225Mhz TMDS clock)
- Supports HD High Definition resolutions HDMI 408p, 720p 1080i/1080p
- Supports DVI resolutions up to UXGA (1920x1200)
- SPDIF format with DTS 5.1, Dolby 5.1 & PCM2
- Digital Audio SPDIF format with DTS 5.1, Dolby 5.1 & PCM2
- Select to turn ON or OFF the TV or Audio Amplifier Speaker
- Cable support in/out distance 15M depend on the HDMI cable quality
- Mounting easy for Wall mountable

SPECIFICATIONS

- **Type of Extractor:** HDMI Extractor ARC-Source SPDIF-analog Audio
- **HD Compliant:** HDMI 1.3a, HDMI 1.3C(CTS), DVI 1.0, DDC 5Vpp
- **HD Supports:** Compliant with HDCP 1.4 specification
- **EDID Supports:** Three: TV-passing EDID to source, PCM-2CH and Bitstream
- **Video Support:** 1080p HDMI format and DVI 1920x1200 resolution Digital RGB 12bits format deep color TMDS clock
- **Audio Supports:**
    - **Audio Port:** PCM-2CH
    - **SPDIF Port:** DTS 5.1, Dolby 5.1, PCM-2CH
    - **HDMI Port:** PCM-2CH, PCM 7.1, DTS 5.1, Dolby 5.1, Dolby Digital 7.1, DTS HD7.1, MAP(MLP) 7.1, One Bit Audio 2CH
    - **Analog Audio:** LPCM2
- **3D Supports:** 3D Video format in HDMI 1.4 (223MBHz)
- **Frequency Range:** HDMI 25MHz ~ 225MHz TMDS clock
- **ARC Control:** Audio Return Channel via TV HDMI ARC port
- **Audio Extractor:** Turn ON or OFF the TV or Audio Amplifier Speaker
- **Cable Distance:** in/out 50 feet (15M) for a total of 100 feet (30M) depending on HDMI cable quality
- **Safety Approvals:** CE, FCC, RoHS(2002/95/EC)
- **Dimensions (LWH):** 4.95 x 3.14 x 1.0 in (130mm x 80mm x 25mm)
- **Shipping Weight:** 0.35 kgs / 0.58 lb
- **Power Supply:** Universal World Widepower supply
    - **Input:** 110~230VAC, 50/60Hz
    - **Output:** +12VDC/1A

As product improvements are continuous, specifications are subject to change and without notice.

RS-232 PROTOCOL COMMAND

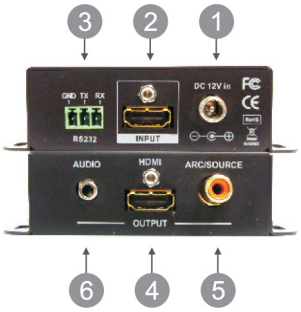
RS-232 TRANSMISSION FORMAT

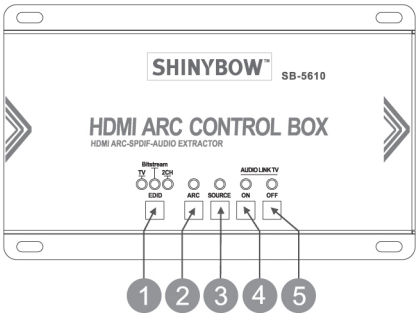
Baud Rate: 9600
Date Bit : 8
Parity: None
Stop Bit: 1 Bit

COMMAND CODE	RESPONSE	DESCRIPTION
ARC 00	OK	Switch to **SOURCE**
	NG	UN-Know Command
ARC 01	OK	Switch to **ARC**
	NG	UN-Know Command
HDMIADO 00	OK	**OFF**
	NG	UN-Know Command
HDMIADO 01	OK	**ON**
	NG	UN-Know Command
EDID 01	OK	Switch to **TV**
	NG	UN-Know Command
EDID 02	OK	Switch to **Bitstream**
	NG	UN-Know Command
EDID 03	OK	Switch to **2CH**
	NG	UN-Know Command
POWER 00	OK	**POWER OFF**
POWER 01	OK	**POWER ON**

TYPICAL HOOKUP AND OPERATION

SB-5610: FRONT AND REAR PANEL INSTRUCTIONS





FRONT & REAR PANEL

1. DC Input: 12VDC
2. HDMI Input: Signal from HDMI player source
3. RS-232 Input: RS-232 interface series
4. HDMI Output: HDMI signal connect to display
5. SPDIF Output: Audio from ARC or SOURCE Audio via control ON/OFF button

CONTROL BUTTON

1. EDID:
   - TV: Passing EDID source to TV
   - Bitstream: Multi Audio formats
   - 2CH: LPCM 2CH
2. ARC: ARC button to turn on the ARC function
3. SOURCE: SOURCE button to turn on and control the player source AUDIO function
4. ON: Turn ON Audio to TV by pressing ARC or SOURCE button
5. OFF: Turn OFF Audio to TV by pressing ARC or SOURCE button

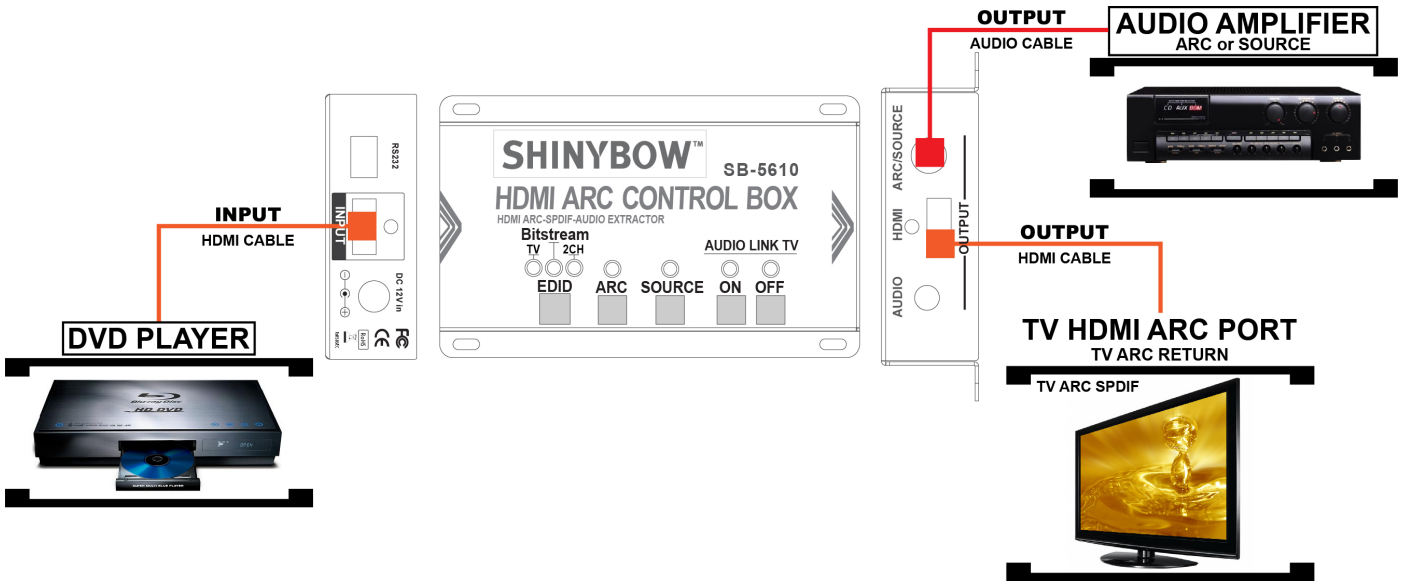
Safeguards and Precautions

A. Keep this unit away from fire, extremely hot areas, water or moisture of any kind.
B. Do not place this unit on any support that is not firm, level and strong.
C. Do not service the unit yourself. Opening the unit's housing will void the warranty.
D. Servicing must be by Shinybow or by an authorized technician.
C. Illegal duplication of copyrighted material is strictly prohibited by Federal Laws.

HDMI AUDIO EXTRACTOR-ARC-SPDIF ANALOG STEREO

Inputs: 1x HDMI (Digital Video-TMDS, Digital Audio), RS-232

Outputs: 1x HDMI, 1xSPDIF, 1x Stereo Audio



LIMITED WARRANTY

PLEASE READ THE FOLLOWING TERMS AND CONDITIONS CAREFULLY BEFORE USING THIS HARDWARE, COMPONENTS AND SOFTWARE PROVIDED BY, THROUGH OR UNDER SHINYBOWUSA, INC (COLLECTIVELY, THE "PRODUCT"). By using installing or using the Product, you unconditionally signify your agreement to these Terms and Conditions. If you do not agree to these Terms and Conditions, do not use the Product and return the Product to SHINYBOWUSA, Inc. at the return address set forth on the Product's packing label at your expense. SHINYBOWUSA, Inc. may modify these Terms and Conditions at anytime, without notice to you.

RESTRICTIONS ON USE OF THE PRODUCT

It is your responsibility to read and understand the installation and operation instructions, both verbal and in writing, provided to you with respect to the Product. You are authorized to use the Product solely in connection with such instructions. Any use of the Product not in accordance with such instructions shall void any warranty pertaining to the Product. Any and all damages that may occur in the use of the Product that is not strictly in accordance with such instructions shall be borne by you and you agree to indemnify and hold harmless SHINYBOWUSA, Inc. from and against any such damage.

The Product is protected by certain intellectual property rights owned by or licensed to SHINYBOWUSA. Any intellectual property rights pertaining to the Product are licensed to you by SHINYBOWUSA, Inc. and/or its affiliates, including any manufacturers or distributors of the Product (collectively, "SHINYBOWUSA") for your personal use only, provided that you do not change or delete any proprietary notices that may be provided with respect to the Product.

The Product is sold to you and any use of any associated intellectual property is deemed to be licensed to you by SHINYBOWUSA for your personal use only. SHINYBOWUSA does not transfer either the title or the intellectual property rights to the Product and SHINYBOWUSA retains full and complete title to the intellectual property rights therein. All trademarks and logos are owned by SHINYBOWUSA or its licensors and providers of the Product, and you may not copy or use them in any manner without the prior written consent of SHINYBOWUSA, which consent may be withheld at the sole discretion of SHINYBOWUSA.

The functionality and usability of the Product is controlled by SHINYBOWUSA, Inc. from its offices within the State of Texas, United States of America. SHINYBOWUSA makes no representation that materials pertaining to the Product are appropriate or available for use in other locations other than the shipping address you provided with respect thereto. You are advised that the Product may be subject to U.S. export controls.
Disclaimers and Limitation of Liability

SHINYBOWUSA may change or modify the Product at any time, from time to time.

THE PRODUCT IS PROVIDED "AS IS" AND WITHOUT WARRANTIES OF ANY KIND EITHER EXPRESS OR IMPLIED. SHINYBOWUSA DOES NOT WARRANT OR MAKE ANY REPRESENTATIONS REGARDING THE USE OR THE RESULTS OF THE USE OF THE PRODUCT'S CORRECTNESS, ACCURACY, RELIABILITY, OR OTHERWISE.

SHINYBOWUSA has no duty or policy to update any information or statements pertaining to the Product and, therefore, such information or statements should not be relied upon as being current as of the date you use the Product. Moreover, any portion of the materials pertaining to the Product may include technical inaccuracies or typographical errors. Changes may be made from time to time without notice with respect to the Product.

TO THE FULLEST EXTENT PERMISSIBLE PURSUANT TO APPLICABLE LAW, SHINYBOWUSA DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. SHINYBOWUSA DOES NOT WARRANT THE ACCURACY, COMPLETENESS OR USEFULNESS OF ANY INFORMATION WITH RESPECT TO THE PRODUCT. SHINYBOWUSA DOES NOT WARRANT THAT THE FUNCTIONS PERTAINING TO THE PRODUCT WILL BE ERROR-FREE, THAT DEFECTS WITH RESPECT TO THE PRODUCT WILL BE CORRECTED, OR THAT THE MATERIALS PERTAINING THERETO ARE FREE OF DEFECTS OR OTHER HARMFUL COMPONENTS. SHINYBOWUSA WILL USE ITS REASONABLE EFFORTS TO CORRECT ANY DEFECTS IN THE PRODUCT UPON TIMELY WRITTEN NOTICE FROM YOU NOT TO EXCEED 10 BUSINESS DAYS AFTER RECEIPT BY YOU OF THE PRODUCT, BUT YOU (AND NOT SHINYBOWUSA) ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING, REPAIR AND CORRECTION THAT WAS CAUSED BY YOU UNLESS OTHERWISE AGREED TO IN A SEPARATE WRITING BY SHINYBOWUSA.

UNDER NO CIRCUMSTANCES, INCLUDING, BUT NOT LIMITED TO, NEGLIGENCE, SHALL SHINYBOWUSA BE LIABLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES THAT RESULT FROM THE USE OF, OR THE INABILITY TO USE THE PRODUCT IN ACCORDANCE WITH ITS SPECIFICATIONS, EVEN IF SHINYBOWUSA OR ITS REPRESENTATIVES HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL SHINYBOWUSA'S TOTAL LIABILITY TO YOU FROM ALL DAMAGES, LOSSES, AND CAUSES OF ACTION (WHETHER IN CONTRACT, OR OTHERWISE) EXCEED THE AMOUNT YOU PAID TO SHINYBOWUSA, IF ANY, FOR THE PRODUCT.

END OF DOCUMENT

122 Rose Ln. Suite 303 | Frisco, Texas 75034

1-877-SHINY-USA
1-877-744-6987
1-972-377-2508

sales@shinybowusa.com

www.shinybowusa.com

SHINYBOW™ USA
MULTIMEDIA AUDIO AND VISUAL