

# **Owner's Manual**

## **BLACK ICE AUDIO**

### **FUSION DAC Transport Dual Mono Vacuum Tube Stand Alone Digital to Analog Converter with Compact Disc Player**

#### **Black Ice Audio**

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## Dear Client:

We at Black Ice Audio want to thank you for purchasing the Black Ice Audio Vacuum Tube Fusion DAC Transport. The company that stands behind your DAC Transport draws on a two decades of tube design and manufacturing experience. In addition to our engineering knowledge is a commitment to our client to provide the highest level of quality sound at a value price. Our commitment to value has resulted in audio amplifiers and associated tube equipment that has the sonic characteristics of what is referred to as "Hi-end". Black Ice Audio has achieved the goal through modern design principles, quality parts, craftsmanship and strict attention to efficient purchasing and production. We are confident that your DAC Transport will provide you with years of listening pleasure.

Before using this unit, please take the time to carefully read and understand the safety instructions and operating information before you install or attempt to operate your Fusion DAC Transport. Becoming familiar with important facts about your unit and its correct operating procedures will help assure you of safe usage, maximum musical satisfaction, and reliable operation. Take special care to follow the warnings indicated on the unit itself as well as the safety suggestions found in the owner's manual. The effort you invest now will be well rewarded as time goes by.

**Sincerely**  
**Black Ice Audio, Inc.**

### **Important**

Please check your unit's bottom panel and record in the space below:

Model Number: Fusion DAC Transport

Serial Number:

Please fill out the warranty card enclosed with this package. If the warranty card is not sent in, the warranty time will be reduced to nine months. Keep your owner's manual and receipt in a safe place for future reference.

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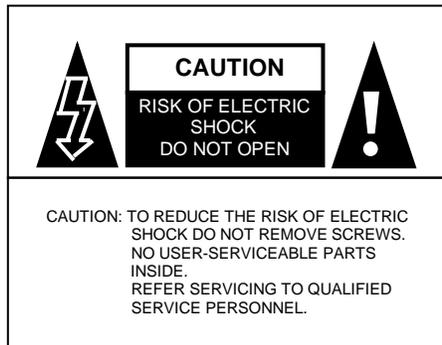
# SAFETY PRECAUTIONS

## IMPORTANT SAFEGUARDS

PLEASE READ CAREFULLY ALL THE FOLLOWING IMPORTANT SAFEGUARDS THAT ARE APPLICABLE TO YOUR EQUIPMENT.

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The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated “dangerous voltage” within the product’s enclosure that may be of sufficient 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 appliance.

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## SAFETY

- 1) **Read the Safety Instructions in the Owner's Manual** - All the safety and operating instructions should be read before the product is operated.
- 2) **Retain the Owner's Manual** - The safety and operating instructions should be retained for future reference.
- 3) **Heed Warnings** - All warnings on the product and in the operating instructions should be adhered to.
- 4) **Follow Instructions** - All operating and use instructions should be followed.
- 5) **Power Sources** - This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

- 6) **Grounding** - For proper usage, use an electrical outlet that is grounded. If you do not know whether the outlet is grounded, consult your electrician or local power company.
- 7) **Power Cord Protection** - 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 at plugs, convenience receptacles and the point where they exit from the product.
- 8) **Overloading** - Do not overload wall outlets, extension cord or integral convenience receptacles as this can result in a risk of fire or electric shock.
- 9) **Lightning** - For added protection for this product during a lightning storm or when it is left unattended and unused for long periods of time, unplug it from the wall outlet.

# SAFETY PRECAUTIONS CONTINUED

## INSTALLATION ENVIRONMENT

- 1) **Water and Moisture** - Do not use this product near water - for example, near a bathtub, wash bowl, kitchen sink or laundry tub; in a wet basement; or near a swimming pool or the like. Damp basements should be avoided.
- 2) **Heat** - The product should be situated away from heat sources such as radiators, heat registers, stoves or other products that produce heat. Also avoid putting the unit in the direct rays of the sun.
3. **For indoor use only.**

## PLACEMENT

- 1) **Ventilation** - This product should not be placed in a built-in installation or rack unless proper ventilation is provided, or the manufacturer's instructions have been adhered to. Never obstruct the top portion of you CD Player with any objects that could result in the unit overheating and causing damage to the CD Player.
- 2) **Foreign Material** - Care should be taken so that objects do not fall into and liquids are not spilled into the unit. Do not subject this unit to excessive smoke, dust, mechanical vibration, or shock.
- 3) **Surface** - Place the unit on a flat level surface.
- 4) **Accessories** - Do not place this product on an unstable cart, stand, tripod, bracket or table. The product may fall causing serious injury to a child or adult and serious damage to the product. Use only with a cart, stand, trips, bracket or table recommended by the manufacturer or sold with the product. Any mounting of the product should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.
- 5) **Carts** - A product and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the product and the cart combination to overturn.
- 6) **Wall or Ceiling Mounting** - The product should be mounted to a wall or ceiling only as recommend by the manufacturer.



## MAINTENANCE

**Cleaning** - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzene.

## SERVICE

- 1) **Object and Liquid Entry** - Never push objects of any kind into this product through openings as they may touch dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- 2) **Damage Requiring Service** - Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - a) When the power-supply cord or plug is damaged.
  - b) If liquid has been spilled or objects have fallen in the product.
  - c) If the product has been exposed to rain or water.
  - d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
  - e) If the product has been dropped or damaged in any way.
  - f) When the product exhibits a distinct change in performance - this indicates the need for service.
  - g) When the unit needs broken tubes to be replaced.

3) **Replacement Parts** - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or has the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

4) **Tube Replacement** - The 12AX7 /12AT7 tubes in your unit should last up to 20,000 hours. The reason for their long life is that the tubes are operating on 12 volts. Should it become necessary to replace your tubes, please take the unit to your dealer. If the dealer has tubes in stock, it should only take a few minutes to replace them.

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## **GENERAL INFORMATION**

### **About Your Unit: Fusion DAC Transport**

The Fusion DAC Transport combines the proven sound quality of vacuum tubes and the convenience of the digital format. Our design objectives are 1) Sound quality, 2) High standards of build quality and sound quality at a value price, and 3) a high level of reliability and long life. Our engineering design encompasses several important aspects. In terms of function, the DAC Transport can operate as a stand-alone DAC with USB, Toslink and Coaxial inputs.

Parts quality is the best currently available, and the overall circuit layout is maximized for sonic purity. The basic electronic design is a true balanced circuit/dual mono for signal purity. Discrete operating units are compartmentalized using steel panels to reduce interference (such as separating the power board from the signal board). The transport is the top-of-the-line Phillips transport. The main output is a true tube gain stage, after the digital to analog conversion; the signal processing is vacuum tube and not solid state.

### **Construction and Testing**

Like every Black Ice Audio product, your DAC Transport has been designed and carefully hand-crafted, using precision mechanical parts. The chassis is an all-aluminum construction. Electronic components and assembly procedures are similar to those used in the manufacture of scientific equipment and musical instruments. To assure consistent performance standards, each unit is visually inspected at several assembly points, test run for a minimum of 48 hrs, electronically tested and sonically evaluated prior to shipment.

This time-consuming perfectionist approach to the design and manufacture of audio equipment is intended to provide you with the best in musical satisfaction and lasting value.

### **Vacuum Tubes**

The DAC Transport comes with 6 vacuum tubes, 2 pcs 12AX7A, 2 pcs. 12AT7 and 2 pcs. 12AU7. These tubes give the player its distinct smoothness and resolution. Although you will not have to handle the vacuum tubes since they are installed at the factory, it may be helpful to have a perspective of how to handle vacuum tubes. Many individuals may think that they lack any experience with vacuum tubes. However, handling incandescent light bulbs is similar to dealing with vacuum tubes. As with light bulbs, you should not touch a light bulb when it is operating since you can burn yourself. A light bulb dropped on a hard surface will most likely lead to breakage. If you replace a light bulb you should make certain the lamp is disconnected from the AC outlet and make certain the light bulb has cooled down. Never force a light bulb into a socket. You should treat the light bulb gently when holding or replacing them. Taking the commonsense precautions usually associated with light bulbs will give you a general idea of how to handle a vacuum tube.

The tubes installed in the unit will last for at least 20,000 hours before the need for replacement. The reason for long life is due to the low voltage required to power the tube. In this regard, the tube will not run hot, thus eliminating the main factor for tube wear. In reality, most people change the tubes before they wear out in order to experiment with different sounds.

### **Packaging**

Save all the packaging in a dry place. Your unit is a precision electronic instrument and should be properly packaged any time shipment is made. Because of its weight (28 pounds), it is highly probable that the unit will be damaged during shipment if repackaged in a box and packing other than that designed for the unit.

You may have occasion to return the unit to the factory for service or some other situation that requires the shipment of your unit. Should it prove necessary to ship it, the original packaging may save your investment from unnecessary damage, delay and expense.

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# GETTING STARTED

**Unpacking:** Check that you received the following items.

- 1 Remote control unit
- 1 Power cord

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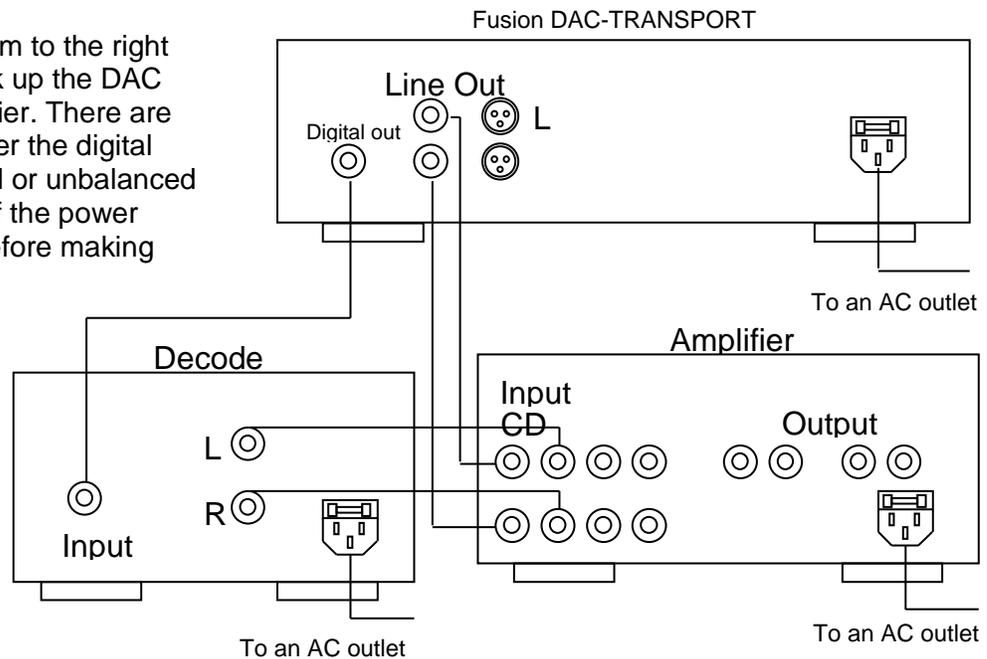
## Inserting Batteries in the Remote Control:

You can control the player using the supplied Remote. You will have to use a Phillips screwdriver to remove the four screws on the back panel of your remote. Once the panel is removed, then two AA batteries matching the + and the - on the batteries need to be inserted. When using the remote, point it at the remote sensor on the player. Batteries should last for about 6 months. When the remote no longer operates the player, replace all the batteries with new ones. Do not expose the remote sensor to direct sunlight or lighting apparatuses. Doing so may cause a malfunction. If you do not use the remote for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

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## Hooking Up the System:

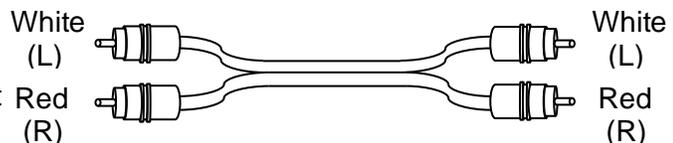
Overview: The diagram to the right describes how to hook up the DAC Transport to an amplifier. There are two options using either the digital output or the balanced or unbalanced out. Be sure to turn off the power of each component before making the connections.



On the back of your DAC Transport there are two sets of analog outputs, balanced and unbalanced and two digital outputs, coaxial and toslink. Both analog outputs are the fixed tube signal. The digital outputs are placed for your convenience.

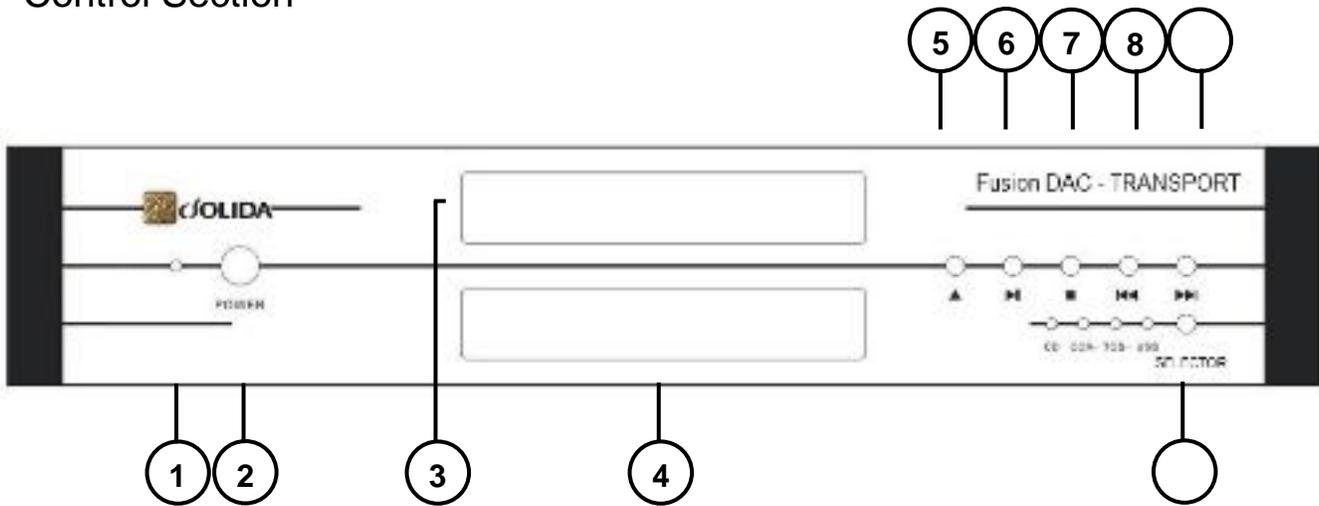
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**What Interconnects will I need:** A set of Audio Interconnects are not supplied. We do recommend you speak with your Audio Dealer to choose interconnects that will maximize sonic quality.



# FRONT PANEL CONTROLS AND FUNCTIONS

## Control Section



1. Indicator Light
2. On/Standby/Off Power Switch
3. Display Window
4. Disc Holder
5. Open/Close Disc Tray Button
6. Play/Pause Button
7. Stop Button
8. Backward Skip Selection
9. Forward Skip Selection
10. Selector Switch (CD, USB, Toslink, Coaxial)

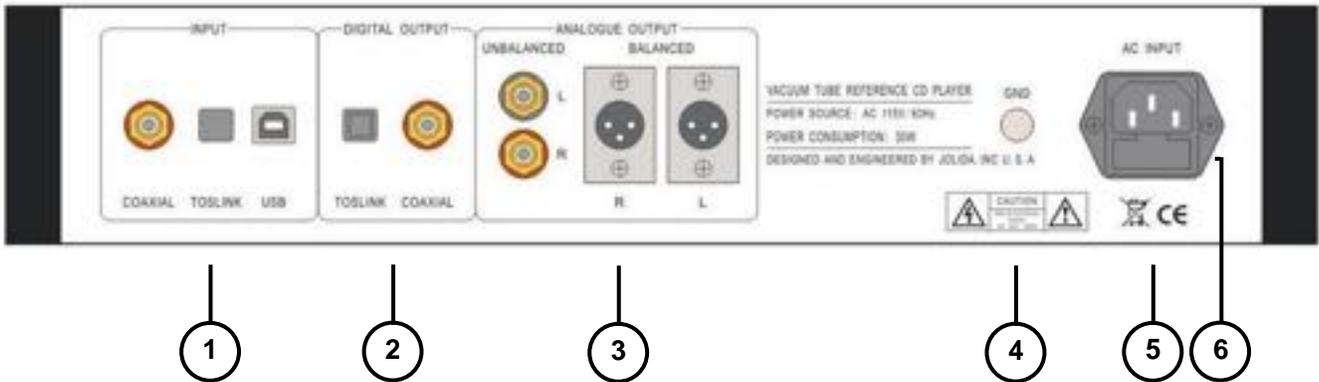
## Playing a CD

1. Before you Start: turn on the Amplifier.
2. Press **Power Button** to turn the player to on.
3. Using the selector switch, press the button until the CD lights up.
4. If the unit is in Standby, press the open/close button or play to turn the unit on.
5. Press the **Open/Close** button and place a CD on the tray.
6. Press the **Play** button. After a few seconds, the program will appear in the display.
7. Press the **Play Button** again to pause the disc. The indicator **II** will appear in the display window. If you push the **Play button** again and the disc will resume playing at the same point.
8. To stop playback. Press the **Stop** Button.

## Using the DAC

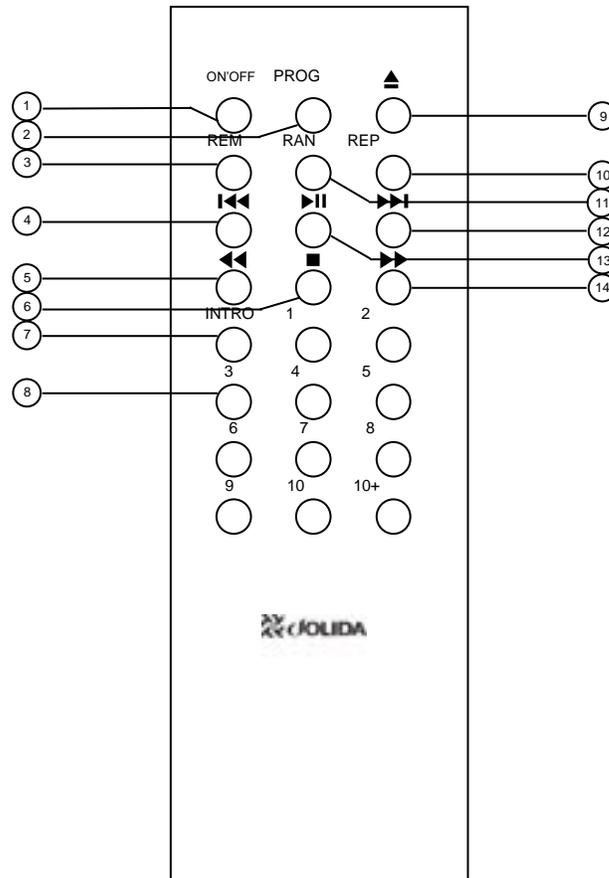
1. Plug into the DAC Transport your digital source.
2. On the Selector Switch on the front of the DAC Transport, press the button to select the source, USB, toslink or Coaxial.
3. Begin playing your source.

# Connections



1. Digital inputs: USB, toslink, or coaxial.
2. Digital outputs: toslink, coaxial
3. Analog Output: unbalanced, balanced
4. Ground Knurl: Used to ground other pieces of electronic equipment. Please Note: If there is a hum or static coming from the speakers with the unit on, there may be a ground loop that is being caused by a floating ground amplifier hooked up with a true grounded unit. To solve the issue, either put a two-prong adapter on the wall plug end of your AC cord (cheater plug). The unit will now have a floating ground and your unit will now be grounded through the interconnect cables to the amplifier. Another option is to run a wire from the ground knurl of the CD player to the ground knurl of the amplifier. However, this does not always work.
5. It is essential that the DAC Transport be connected to a wall AC power receptacle, or a similar heavy-duty source. Avoid the use of extension cords. If they must be used on a temporary basis, use 16-gauge or heavier cords. The power cord on your unit has a standard three-prong grounding plug to provide maximum safety when it is connected to a ground wall receptacle. If there is any question regarding the safety of grounding procedures, be certain to seek competent help with the installation.
6. In the upper half of the IEC part is the fuse holder with a spare fuse. When replacing the fuse, the AC cord must be removed from the unit. To remove the fuse holder, take a small flathead screwdriver and gently pry out the holder as if it were tray that slides straight out. When replacing the fuse, for 110 - 120 VAC (Household AC current) use a 1.0 amp slo blow fuse and for 200-240 VAC use a 0.5 amp slo blow fuse.

# Remote Control



Overview: Some remote-control functions are the same as the front panel. In order for the remote-control unit to function properly, while using the remote control, please point it directly at the remote sensor on the front panel of the CD Player.

- |                      |                         |                    |
|----------------------|-------------------------|--------------------|
| 1. On/Off Button     | 7. Introduction Button  | 11. Random Button  |
| 2. Program Button    | 8. Number Buttons       | 12. Forward Skip   |
| 3. Remember Button   | 9. Open/Close Disc Tray | 13. Forward Search |
| 4. Backward Skip     | 10. Repeat Button       | 14. Forward Search |
| 5. Play/Pause Button |                         |                    |
| 6. Backward Search   |                         |                    |

## Where Do I Go Next?

Now you are ready to use the functions of your DAC Transport. If there are questions regarding the basic operating elements of your unit, how to hook the system up, turning the unit on, or playing a Compact Disc, please refer to page 6,7 and page 8. This section will explain functions that are beyond the playing of the transport. **These instructions are applicable for the remote control.**

## **1. Pause Mode:**

If the Transport is playing a disc, pushing the Play/Pause button will stop the disc and the pause indicator **II** will appear in the display window. If you push the Play/Pause button, the disc will resume playing.

## **2. Program Button:**

- a. Press the Program button while the player is in pause.
- b. Push a number button to select the desired track to be saved.
- d. After you have selected the track number, push the "Program" button once, and the selected track number will be saved in the memory. At that moment the saved item number and the "Program " indicator will appear on the display window.
- e. By repeating the above two steps, you can store up to 24 items.
- f. Push Play/Pause button and the player will play as programmed.
- g. Push the "Stop" Button twice and it will cancel the stored program.

## **3. When the transport is Operating:**

- a. Press the "Repeat" button and the Repeat indicator will appear on the display window. The disc player will play this same track over and over.
- b. Push the Repeat Button a second time, the display window will still show the Repeat indicator, but the disc player will play the entire CD disc continuously.
- d. Push the Repeat button again (the third time), the Repeat will be canceled, and the player will resume normal operations.

## **4. How to use the Skip Button when the Player is in the Stop Mode:**

- a. Push Forward Skip or the Backward Skip to select the desired tracks.
- b. Push Play/Pause Button and the player will play your selected track.

## **5. How to use Skip, Search or Selection while the Player is in Operation:**

Use Forward Skip or Backward Skip to select a new track.  
Use Forward Search or Backward Search to go forward in the track that is in play

## **6. Manual Search:**

If you want to hear any part forward on a track or any part previous on a track you may push forward search or backward search to quickly reach the desired part of the track. When you release the button, the player will play the desired part.

## **7. Random:**

By pressing the RAN Button, the player will select tracks on the disc at random.

## 8. Remember Button:

By pressing the Rem Button while a disc is playing, the display will show the time length of the track that is playing. If the Rem Button is pressed again, it will display the time length of the entire CD that is playing. Press the Rem button again and the display will show the time length of what has been played by the current track.

## 9. Introduction:

Press the Intro Button and the CD player will play the first ten seconds of each track on the CD. Push the Intro Button again to cancel Introduction.

## 10. The Display of Track Numbers and their Playing Time:

- a. When you insert the CD disc, or stop in the middle of playing the disc, the window will automatically show the total number of tracks on the Compact Disc and the time required to play the entire Disc.
- b. While a disc is being played, the display window will show the number of tracks played and how much time has been used.

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## ADDITIONAL INFORMATION

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### Changing the Vacuum Tubes

1. Using a 3mm Allen wrench, you need to remove four bolts.
2. Remove the top cover.
3. With the front of the DAC Transport toward you, the tubes are located in the left- and right-hand compartments. The 6 tube pieces have a cover over them that are held in place with a bayonet lock. To remove the cover, gently push the cover down, turn the cover counterclockwise for one/eighth of a turn and pull the cover off. The tube will now be exposed.
4. To remove the tube, pull the tube straight up out of the socket.
5. To put a new tube in, line the pins of the tube with the holes in the socket and gently push the tube in. Try to do this procedure keeping the tube as vertical as possible to avoid bending the tube pins.

### Tube Placement:

2V1 = 12AX7

2V2 = 12AT7

2V3 = 12AU7

## **Notes on CDs**

### **On Handling CDs**

1. To keep the disc clean, handle the disc by its edge. Do not touch the surface.
2. Do not stick paper or tape on the disc.
3. Do not expose the disc to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight as there can be considerable rise in temperature inside the car.
4. Do not use any commercially available stabilizer. If you do, the disc and the player may be damaged.
5. After playing, store the disc in a case.

### **ON CLEANING**

1. Before playing, clean the disc with a cleaning cloth. Wipe the disc from the center out.
2. Do not use solvents such as Benzine, thinner, commercially available cleaners or anti-static intended for vinyl LPs.

## **Should I change my tubes**

We are often asked if changing the vacuum tubes to a different manufacture will make the DAC Transport sound better. We are not the politically correct source for that that type of information. We state that the tubes of different manufacturers will make the sound different. You will be judge whether it is better. Since the unit is extremely neutral, even subtleties of harmonics found in the various tubes will be evident. Stating that tubes can sound different does not answer the “what sounds better question”, but it points out a practical aspect of the player. By using different tubes, you can craft sound in your system. For example, assume that you have changed your speakers for another pair that are bright. By using Chinese Tubes that have a smoother, rounder sound, you can balance that brightness out of your system. Thus, in creating a system that has the sound elements you find desirable in sound can be “fine tuned” through different tubes.

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## Troubleshooting

If you experience any of the following difficulties while using the player, use this troubleshooting guide to help you remedy the problem. Should any of these problems persist, consult your nearest Black Ice Audio Dealer.

### **There is no sound.**

- >Check that the player is connected to the amplifier.
- >Check that the power switch is on.
- >Check to see if the unit is plugged into an outlet.
- >Check the fuse located in the IEC or the place where the AC Cord is attached to the unit. Pry the cover off carefully (slides out like a tray) to expose the fuse and check to see if it is intact. If not, replace with the spare fuse.

### **The CD does not play.**

- >There is no CD inside the player. Insert a CD.
- >Place the CD with the label side up on the disc tray correctly.
- >Clean the CD.
- >Moisture has condensed inside the player. Remove the disc and leave the player turned on for about an hour.

### **The remote does not function.**

- >Remove the obstacles in the path of the remote and the player.
- >Point the remote at the remote sensor on the player.
- >Replace all the batteries in the remote with new ones if they are weak.

### **The Display is reading “No Disc” or is reading “-----“when a disc is in the unit.**

- >Turn the unit off, allow it to sit for three seconds and turn the unit on. Since the unit is all metal, it is susceptible to static electricity. Turning the unit off and back on, resets the controller.

### **The Display has red box reading OVR.**

- > There is nothing wrong with the unit. The CD player tracks up to 15 music cuts on a CD disc. The player is only alerting that the disc playing has over (OVR) 15 cuts.

## **There is a hum or static coming from the speakers with the CD player on:**

>There may be a ground loop that is being caused by a true grounded amplifier and a true grounded CD player. To solve the issue, either put a two-prong adapter on the wall plug end of your AC cord (cheater plug) or run a wire from the ground knurl of the CD player to the ground knurl of the amplifier. Your unit will now be grounded through the interconnect cables.

## **Servicing**

Because of its careful design and exacting standards of manufacture, your Fusion DAC Transport should normally require only minimal service to maintain its high level of performance.

**CAUTION:** The Fusion Transport has sufficient levels of voltage and current to be lethal. Do not tamper with a component or part inside the unit. Even with the power turned off, a charge remains in the energy storage capacitors for some time. Refer any needed service to your authorized Black Ice Audio dealer or other qualified technician.

The vacuum tubes inside the Fusion DAC Transport are high-quality and should last 20,000 hours. If you should need replacement tubes, please consult your dealer or service representative.

Questions regarding your amplifier may be referred to the Customer Service Department of Black Ice Audio: (301) 953-2014.

**We hope you enjoy your musical experience.**

## **LIMITED WARRANTY**

The Black Ice Audio Fusion DAC Transport is warranted for the period stated from the date of the original purchase.

1. Chassis and Transformers	18 months
2. Electron Tubes	6 months

### **WHO IS PROTECTED BY THIS WARRANTY**

Your Black Ice Audio warranty protects the original owner so long as the original bill of sale is presented, or warranty card is on file when warranty service is required. In addition, the warranty card included with your amplifier must be submitted within thirty days of purchase otherwise the warranty will be good for only nine months. The warranty is not transferable if unit is resold.

### **WHAT IS COVERED BY THE WARRANTY**

Your Black Ice Audio warranty covers all defects in material and workmanship with the following specified exceptions. These are: (1) Electron tubes are warranted for six months or 1,000 hours whichever ever comes first; (2) damage caused by accident, unreasonable use or neglect (including the lack of reasonable and necessary maintenance); (3) modifications to the amplifier; (4) damage occurring during shipment (claims must be presented to the carrier); (5) damage to or deterioration of any accessory or decorative wooden surface; (6) damage resulting from failure to follow instructions contained in your owner's manual; (7) damage resulting from the performance of repairs by someone other than Black Ice Audio or an authorized Black Ice Audio warranty station; (8) any Black Ice Audio unit on which the serial number has been effaced, modified or removed; (9) units used as demonstration or display models prior to purchase by the original consumer owner; (10) units used for the purpose other than home use.

### **HOW TO OBTAIN WARRANTY PERFORMANCE**

If your Black Ice Audio unit ever needs service, write to us at Black Ice Audio Inc., PO Box 218, Brookeville, MD 20833 (Att. Customer Relations Department). We may direct you to an Authorized Black Ice Audio Warranty Station or ask you to send your unit to the factory for repair. Either way, you'll need to present the original bill of sale to establish the date of purchase. Along with the receipt of purchase, add a piece of paper with your name, address, phone number, and a description of the problem. Please ship your Black Ice Audio unit to the Maryland address.

If service under this warranty is not necessary, but you have questions regarding the installation or operation of your unit, please write to our Customer Relations department at the address above.

### **WHO PAYS FOR WHAT**

Black Ice Audio will be happy to pay all labor and material expenses for all repairs covered by this warranty. If necessary, repairs are not covered by this warranty, or if a unit is examined which is not in need of repair, you will be charged for the repairs or examination.

Although you must pay any shipping charges incurred in getting your unit to an authorized warranty station or to the factory, we will pay return shipping charges if the repairs are covered by the warranty. Please be sure to save the original shipping cartons because a nominal charge will be made for additional cartons.

**LIMITATION ON IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY, UNLESS OTHERWISE PROVIDED BY STATE LAW.**

### **EXCLUSION OF CERTAIN DAMAGES**

BLACK ICE AUDIO'S LIABILITY IS LIMITED TO THE REPAIR OR REPLACEMENT AT OUR OPTION, OF ANY DEFECTIVE PRODUCT AND SHALL IN NO EVENT INCLUDE INCIDENTAL OR CONSEQUENTIAL COMMERCIAL DAMAGES OF ANY KIND.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. We sincerely thank you for your expression of confidence in Black Ice Audio products. The amplifiers have been painstakingly assembled by highly trained crafts' people. It should give you many years of musical enjoyment.

## **Fusion DAC Transport Technical Specifications:**

<b>Frequency Response:</b>	20-20KHz $\pm$ 0.5dB $\pm$ 0.5dB
<b>S/N Signal to Noise Ratio:</b>	$\geq$ 98dB
<b>THD + N Distortion:</b>	$\leq$ 0.02% (Balanced signal 1KHz)
<b>Channel Separation:</b>	$\geq$ 96dB (1KHz)
<b>Analog Output Signal</b>	Balanced XLR, Unbalanced RCA
<b>Line Output Voltage:</b>	Balanced signal output 5.0V, 47Kohms
<b>Line Output Voltage:</b>	Unbalanced 2.5V, 47Kohms
<b>Digital Output:</b>	0.5Vpp, 75 ohms
<b>Tubes:</b>	6 pcs. 12AX7 *2,12AT7*2,12AU7*2
<b>Power:</b>	110V or 220V AC 50Hz/60Hz
<b>Power Consumption:</b>	30 watts
<b>Fuse:</b>	1.0 amp fast blow (size 5mm X 20mm) for 110/120 VAC --- 0.5 amp fast blow for 220/240 VAC
<b>Size:</b>	17 in. wide by 12 in. deep and 3.5 in. high
<b>Weight:</b>	28 pounds
<b>Warranty:</b>	12 months on the chassis, 6 months on the vacuum tubes. Parts and labor

**Black Ice Audio, Inc.**  
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