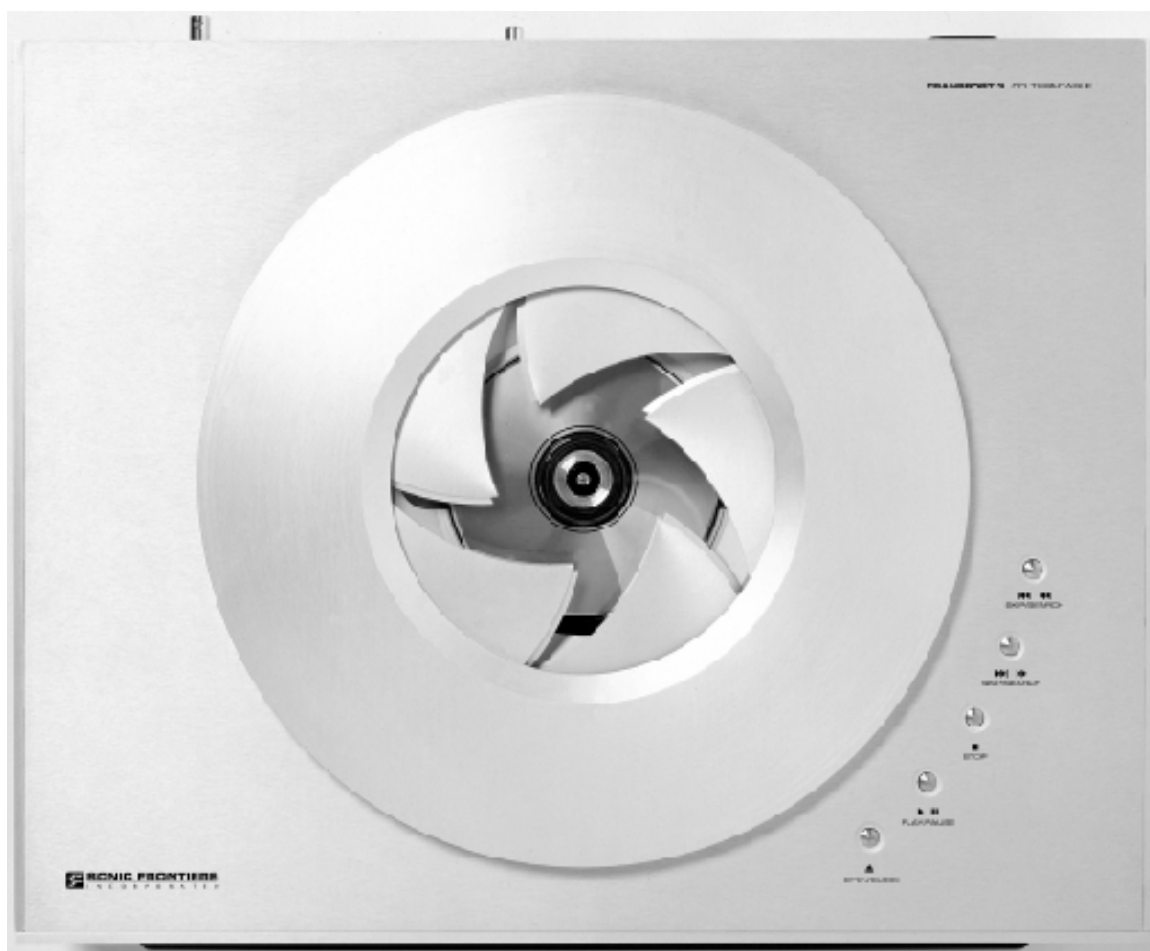


SONIC TRANSPORT 3 CD TURNTABLE FRONTIERS

OPERATING MANUAL



OPERATING MANUAL FOR THE SONIC FRONTIERS TRANSPORT 3 CD TURNTABLE

We at Sonic Frontiers hope you will derive many years of listening pleasure with your new Transport 3 CD Turntable. This Operating Manual contains important information regarding the operation and care of this product. Be sure to read this manual carefully and follow these instructions in order to keep it performing and sounding its best. Please contact Sonic Frontiers if you have any questions - a Customer Service Representative will be pleased to assist you.

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CAUTION: INVISIBLE LASER RADIATION PRESENT WHEN OPEN, DO NOT STARE INTO BEAM.



DANGER: INVISIBLE LASER RADIATION WHEN OPEN, AVOID DIRECT EXPOSURE TO BEAM



This symbol is intended to alert the user to the presence of uninsulated “dangerous voltages” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

UNPACKING

At this point we assume that you have successfully opened the box flaps and found this manual. These boxes were designed to ensure the safe transport of the Transport 3. Sonic Frontiers strongly recommends the storage of these boxes in a safe dry place. In the event that the Transport 3 may have to be shipped in the future, the original boxes are the best means for the protection and safety of the product during transportation.

Here is a chart listing what you will find in the box:

Power Cord	1
Transport 3 CD Turntable	1
Remote Control	1
Warranty Card	1
Operating Manual	1
i ² S • <i>Enhanced</i> Cable	1
CD Clamp	1

If after your inspection of the contents there is a discrepancy, contact your dealer or Sonic Frontiers immediately.

OPERATION, CONNECTIONS AND CONTROL FUNCTIONS



Figure 1

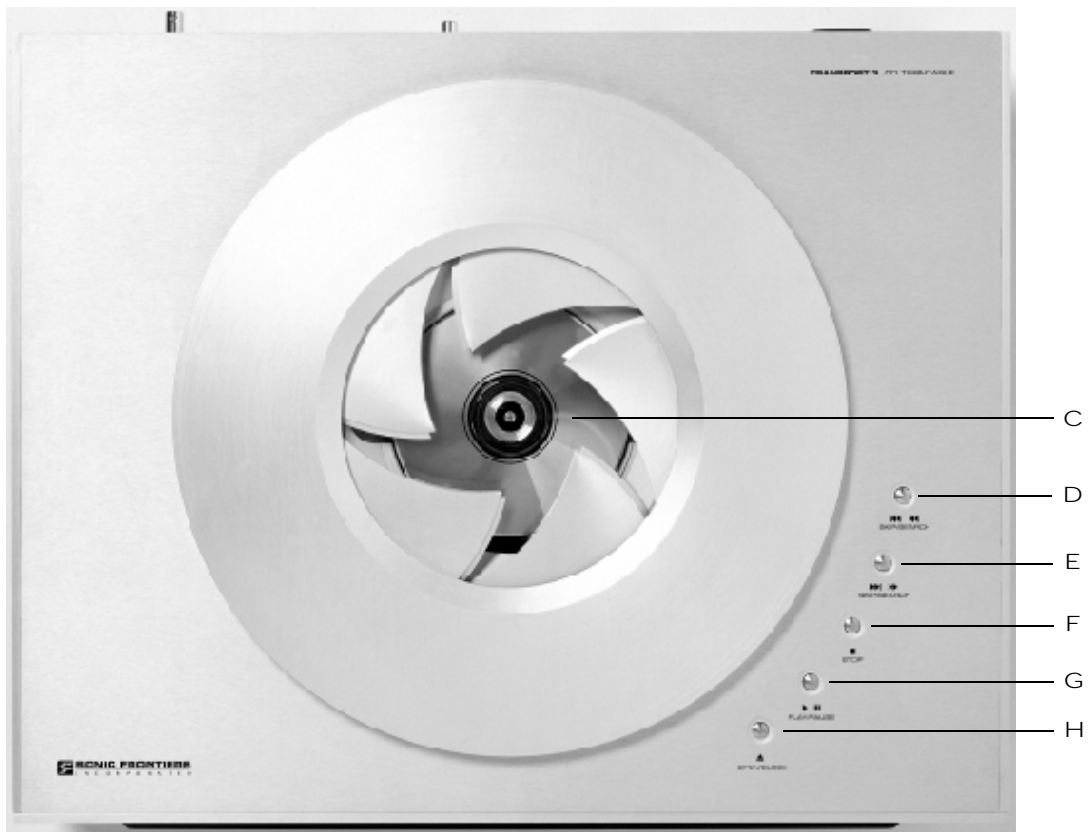


Figure 2

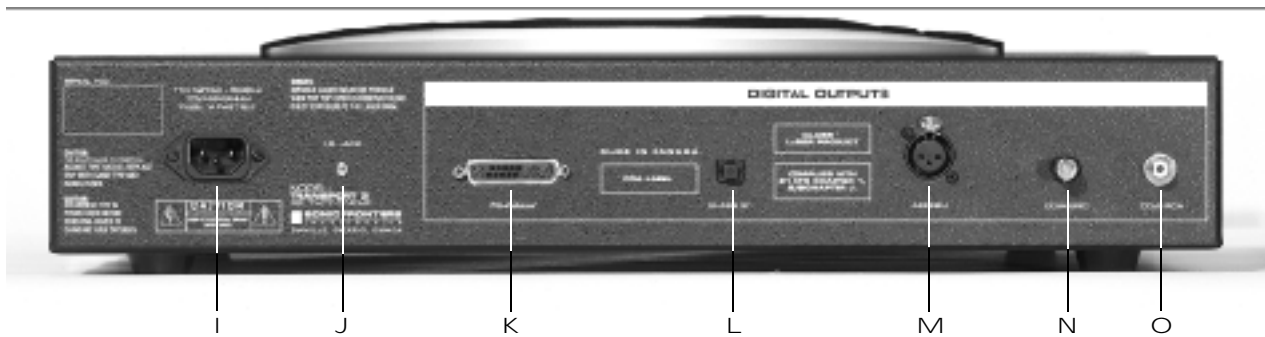


Figure 3

CONTROL AND CONNECTION FUNCTIONS

FRONT PANEL

- A - Display Window - The display window gives the operating status of the Transport 3. When a CD is loaded, the total number of tracks and total time will be displayed. When the Transport 3 is put in play mode, the track being read is displayed with an arrow indicating play and is followed by the time of the individual track. Also displayed are: NO DISC, when power is on and no CD is in the drawer; and OPEN, PAUSE, and REPEAT, when these functions are selected.
- B - Power Button - When depressed, this button will allow power to the transport for full-function control, or it will turn off the Transport 3 when the transport is no longer in use.
- C - IRIS Loading Hatch - This is the mechanism for loading CDs for play in the Transport 3. The IRIS is opened by depressing the OPEN/CLOSE (H) button. A CD is placed in the tray's circular depression, label side up and lying flat, then the CD clamp is placed over the center of the CD, holding it in place. The IRIS is closed, and the CD is loaded for play, by depressing the OPEN/CLOSE (H) or PLAY (G or 2 on the remote) buttons.
- D - Search/Skip Forward and Reverse Buttons -
E - When depressed briefly, these buttons will position the laser to read the start of the track either before (skip reverse) or after (skip forward) the original position of the laser. The transport may be in the play, pause, or stop mode. Play will continue forward from this chosen track.
- When depressed and held, these buttons allow a 10 second audible fast forward or reverse search of a track in play mode. After the 10 second audible search, the Transport 3 will mute and proceed in a faster search. The time positioning and the track are shown in the DISPLAY WINDOW (B).
- F - Stop Button - When depressed, this button will stop all functions, taking the CD out of play mode and aligning the transport to the first track. Depressing the STOP button when the CD is not in play mode will clear selected functions such as SHUFFLE and REPEAT.
- G - Play/Pause Button - When depressed, this button will put the transport in play mode. During play mode, the CD is being read and a digital datastream is being transmitted from the chosen digital output (K through O).
- When depressed again, this button will stop the transmission of the digital datastream at the precise moment it is engaged, and will hold that position until play is resumed by pressing the PLAY/PAUSE (G) button again.
- H - Open/Close Button - When depressed, this button will open and close the IRIS Loading Hatch (C). It will also clear any set functions, such as repeat or shuffle, from memory.

REAR PANEL

- I - Detachable Power Cord Socket - Plug the Detachable Power Cord into this socket (see Figure 1). The Transport 3 is factory set for the correct operating voltage for the area in which it is sold (see shipping box for voltage setting). If a different operating voltage is required, please contact an authorized Sonic Frontiers dealer, distributor or the factory directly.
- J - I.R. Jack - This jack can be used to plug in an external Infra Red Repeater.
- K - I²S•*enhanced* Digital Output - The I²S•*e* interface is Sonic Frontiers enhanced implementation of the I²S bus. I²S•*e* eliminates the necessity of jitter inducing clock encode and recovery circuitry since independent and direct connection of audio data and system clock information is achieved.
- Utilizing the mil-spec 13W3 "D-sub" miniature connector system, separate dedicated clock, audio data and control signals are conveyed from the Transport 3 to the Digital Processor via discrete wideband low VSWR multiple coaxial and balanced interconnections. Ultra high performance Motorola PECL technology is utilized, providing high speed for minimum noise induced jitter (1nS speeds). The enhanced features of this interface standard allow conveyance of status bit flag information, automatically determining Master/Slave clock source relationships and clock frequency division ratios for optimum system performance.
- I²S•*e* is the highest performance digital audio interface yet devised, and will provide the best performance possible. All future Sonic Frontiers Digital sources will incorporate I²S•*e* compatible inputs & outputs.
- L - H-P/ST (Glass Fibre) - If chosen for use, this digital output must connect to an ST-Optical input on the DAC.
- M - AES/EBU XLR Output - This digital output conforms to the AES/EBU (Audio Engineering Society/European Broadcast Union) standard. If this output is chosen for use, a 110 ohm balanced cable terminated with XLR plugs should be used for a connection to the DAC.
- NOTE: The XLR jack pin connectors for the Transport 3 are configured as follows:
Pin #1 : Ground
Pin #2 : Positive (+) Phase
Pin #3 : Negative (-) Phase
- N - COAX-BNC Digital Output - This digital output is a BNC S/PDIF connector. If chosen for use, this digital output should be connected to an S/PDIF connector on the DAC. The BNC Coaxial cable impedance should be 75 ohms.
- O - COAX-RCA Digital Output - This digital output is an RCA S/PDIF connector. If chosen for use, this digital output should be connected to an S/PDIF connector on the DAC. The RCA - Coaxial cable impedance should be 75 ohms.

REMOTE CONTROL FUNCTIONS

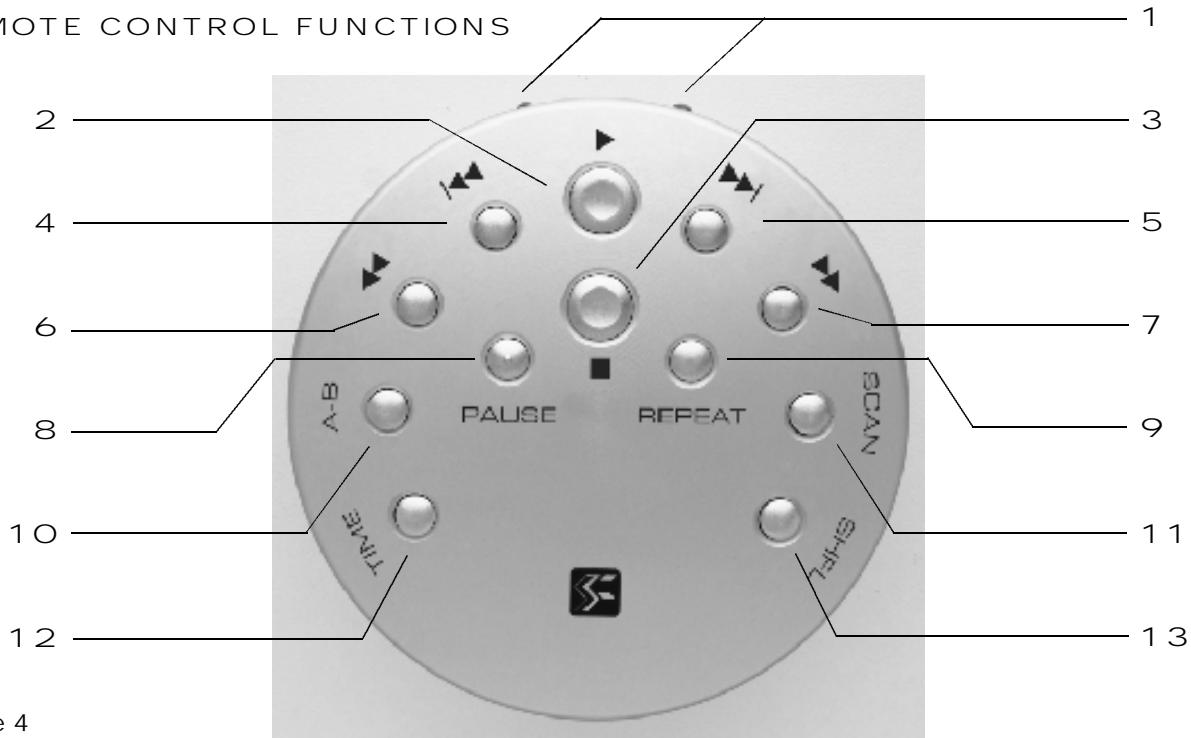


Figure 4

- 1- Dual Infra Red Emitters - These emitters transmit the coded data from the remote control to the Transport 3 front panel. Do not obstruct the infra red beam.
- 2- Play Button - When depressed, this button will put the transport in play mode. During play mode, the CD is being read and a digital datastream is being transmitted from the chosen digital output (K through O).
- 3- Stop Button - When depressed, this button will stop all functions, taking the CD out of PLAY mode and aligning the transport to the first track or the first programmed track. Depressing the STOP button when the CD is not in play mode will clear selected functions such as SHUFFLE and REPEAT.
- 4- Skip Forward and Reverse Buttons - Z-Skip Reverse and Forward Buttons - When depressed, these buttons will position the laser to read the start of the track either before (skip reverse) or after (skip forward) the original position of the laser. The transport may be in the play, pause, or stop mode. Play will continue forward from this chosen track.
- 5- Search Forward and Reverse Buttons - When depressed and held, these buttons allow a 10 second audible fast forward or reverse search of a track in play mode. After the 10 second audible search, the Transport 3 will mute and proceed in a faster search. The time positioning and the track are shown in the DISPLAY WINDOW (A).
- 6- Pause Button - When depressed, this button will stop the transmission of the digital datastream at the precise moment it is depressed, and will hold that position until play is resumed by depressing the PAUSE (G or 8) button again.
- 7- Repeat Button - When depressed once, this button will cause a CD in play mode to repeat the tracks in the order they appear on the CD. When pressed twice, the Repeat One mode will be activated, causing the currently selected or playing track to be repeatedly played. Pressing this button a third time will clear this function.
- 8- A-B - This button will sample a portion of a track for repeat playback. This function is extremely useful for musicians. When the A-B button is depressed once during normal playback of a CD, the Transport 3 will use that position in the playing track as a starting point of the sample and A-> will appear in the DISPLAY WINDOW. Press the A-B button a second time and the Transport 3 will use this point in the playing track as an ending point. A->B will appear in the DISPLAY WINDOW and the Transport 3 will repeat play the sampled selection between the start and ending points.
- 9- Scan Button - When depressed, this button will cause the transport to scan the CD. During this scan the transport will play the first 10 seconds of each track.
- 10- Time Button - When de-pressed and held, these buttons allow a 10 second audible fast forward or reverse search of a track in play mode. After the 10 second audible search, the Transport 3 will mute and proceed in a faster search. The time positioning and the track are shown in the DISPLAY WINDOW (B).
- 11- Shuffle Button - When depressed before the PLAY button (G or 2), this button will randomize the order in which the tracks are played. Depressing this button a second time will clear this function.

TRANSPORT SET-UP

OPERATION OF THE TRANSPORT 3

Before plugging in the Transport 3, check to see that the unit is configured for the correct AC line voltage for country of use. The operating AC line voltage is indicated on the side of the shipping box. If the Transport 3 is set incorrectly for the country in which it is to be operated, contact the dealer or distributor in your area. If the unit is configured properly, continue with operation.

Connect the Detachable Power Cord to the Transport 3 chassis (see Figure 5) and plug your Transport 3 into the AC power source.

Load the Remote Control with 2 AA size batteries.

Next choose the most appropriate digital output connector (K through O). With the appropriate cable connect the Transport 3 to your DAC's digital input.

The Transport 3 CD Turntable is now ready for operation. Power the unit by pressing the Power Button (B), load the Transport 3 with a favorite CD, place the CD clamp over the center of the CD and close the IRIS hatch. Select desired track(s) and press the Play Button (G or 2 on the remote). You are now ready to sit back, listen and enjoy.

BREAK-IN TIME

As with all audio electronic products, the ultimate sonic character of the Transport 3 will not be realized until and unless the unit receives a minimum of approximately 150 hours of signal break-in time (i.e. the Transport 3 is on and outputting a signal).

TROUBLESHOOTING

If at any time the Transport 3 fails to work properly, consult this checklist:

If the Transport 3 will not turn on:

1. Check that the Power Switch (B) is in the on position.
2. Check that the AC Detachable Power Cord is plugged into the Transport 3 Detachable Power Cord Socket (I) and is connected to a live source of AC power. For instance, if using a power bar, check that the bar is turned on.

If the Transport 3 is operating but does not play:

1. Be sure the rest of the system is functioning properly (i.e. DAC, power amplifiers, cables and connections, etc.).
2. Check that the loading drawer is not jammed by an improperly loaded CD.
3. Check to ensure the CD has not been put in the transport with the label side down.
4. Be sure the CD is not damaged and is readable.

If the remote does not function, check to ensure that the two AAA batteries are fresh.

If these checks fail to correct the operation of the Transport 3 Transport contact the nearest Sonic Frontiers dealer or Sonic Frontiers directly.

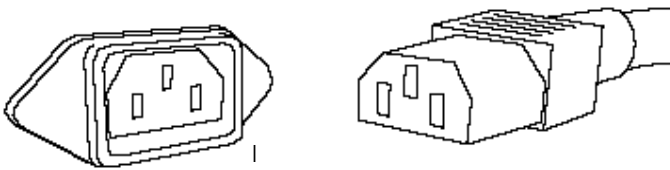


Figure 5 - Align socket pins to corresponding holes and push together.

SAFETY INSTRUCTIONS

TRANSPORT 3 PLACEMENT

Be sure the Transport 3 is resting on a hard, flat surface.

1. Water and Moisture - This product should not be used near water. Do not expose this product to rain or moisture to prevent fire or shock hazard.
2. Heat - This product should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances which produce heat.
3. Power Sources - This product should be connected to an AC power source of the proper rated voltage. The original shipping containers will stipulate the AC voltage this unit can operate with correctly.
4. Cleaning - A regular dusting with a soft, non-abrasive cloth will generally keep the finish of the faceplate and chassis looking like new. At no time should you allow any liquid to come in contact with the Transport 3; it may run into the electronic circuitry and cause damage which will not be covered under your warranty.
5. Servicing - Do not open this product. No user serviceable parts inside. Refer servicing to an authorized service technician.
6. Non-Use Periods - The power cord of this product should be unplugged from the outlet when left unused for an extended period of time.

PACKING MATERIALS

We recommend that you retain all of the packing material and shipping boxes for your Transport 3. They are custom designed to prevent shipping damage from occurring. Sonic Frontiers, Inc. will accept no responsibility for any damage occurring to a Transport 3 that is shipped in packing material other than the original Sonic Frontiers packing material.

DISCLAIMER OF LIABILITY

Under no circumstances does Sonic Frontiers, Inc. assume liability or responsibility for injury or damages sustained in the use or operation of this equipment or for damages to any other equipment connected to it.

Sonic Frontiers, Inc. reserves the right to make design changes or improvements without the obligation to revise prior versions. All specifications are subject to change without notice.

LIMITED FIVE YEAR WARRANTY

Sonic Frontiers, Inc. warrants to the purchaser that each Transport 3 CD Turntable is free of manufacturing defects for a period of five (5) years from the date of purchase. This five (5) year limited non-transferable warranty excludes the CD mechanism, which we warrant for a period of twelve (12) months. To receive this warranty, the original purchaser must complete and mail to Sonic Frontiers, within thirty (30) days from the date of purchase, the enclosed Warranty Registration Form. Sonic Frontiers, Inc. will then validate the warranty to the original purchaser. This warranty is subject to the following conditions and limitations:

1. Warranty applies only to the original purchaser.
2. This warranty is void and inapplicable if the product has been handled other than in accordance with the instructions in this Owner's Manual, abused or misused, damaged by accident or neglect or in being transported, or the defect is due to the product being tampered with, modified or repaired by anyone other than Sonic Frontiers, Inc. or an authorized Sonic Frontiers repair depot.
3. Warranty does not cover normal maintenance.
4. Sonic Frontiers, Inc. shall not be responsible in any way for consequential or indirect damages or liabilities resulting from the use and operation of the product covered herein or resulting from any breach of this warranty or any implied warranty relating to said product.

During this period, Sonic Frontiers, Inc. will repair or replace any defective components free of charge. A Return Authorization Number (RAN) is required before any product is returned to our factory for any reason. This number must be visible on the exterior of the shipping container(s) for Sonic Frontiers to accept the return.

Units shipped to us without a Return Authorization Number or without a visible RAN on the exterior of the shipping container(s) will be returned to the sender, freight collect.

Units to be repaired by Sonic Frontiers, Inc. must be sent shipping and insurance prepaid by the original purchaser in the original packing material. A returned product should be accompanied by a written description of the defect. Repaired units will be returned by Sonic Frontiers, Inc. shipping and insurance prepaid.

All other warranties or conditions either written, verbal, expressed or implied are void.

Note: In foreign markets (anywhere outside of Canada and the USA), the warranty is supplied by the authorized International

TECHNICAL SPECIFICATIONS

Wow and Flutter	Below measurable levels
Jitter	<2 ps rms, to 40 kHz at the clock Typically 10ps rms, at the outputs (independently verified with UltraAnalog's latest Jitter Analyzer)
Digital Outputs (5)	
AES/EBU Impedance	Balanced on XLR-3 connector 110 ohms, ±5%
Level	3.0 p-p typ with 110ohm load
Tr=Tf	7ns, typ
S/PDIF Impedance	Single ended RCA connector 75 ohms, ±5%
Level	0.5V p-p typ with 75 ohm load
Tr=Tf	8 ns, typ
SPDIF Impedance	Single ended BNC connector 75 ohms, ±5%
Level	0.5V p-p typ with 75 ohm load
Tr=Tf	8 ns, typ
Glass-ST Power	HP HFBR-1414 60uw into 62 um fibre
I ² S • e	13W3 style "D-sub" miniature connector Level 2 implementation of I ² S • e
Impedance (Transmission lines)	3-Coax 75ohms, ±5%
Tr=Tf	5-Twisted Pair 110ohms, ±5% Ins typ (ecl.)
Laser Semiconductor	GaAlAs, 0.5mw, continuous, 790nm
Sampling Rate	352.8 kHz
Disc Rotation Velocity	200-500rpm (constant linear velocity)
Quantization	16 bits, linear
Error correction	CIRC principle
I.R. Jack	TTL level optically isolated

Number of channels	2 channels, stereo
Power Consumption	100-120 VAC 50/60Hz 40VA Max. 200-240 VAC 50/60Hz 40VA Max.
Dimensions: Main -	19.125" Wide x 16" Deep x 4." High (49 cm x 40 cm x 10 cm)
Net Weight	Approx. 31.5 lbs (14.3 kg) - unpacked
Warranty	5 years parts and labor 1 year on the mechanism

I²S • *enhanced* CONNECTOR

The signals are transmitted using a single 13W3 cable between the transmitter and receiver. The 13W3 connector consists of three 75 coaxial transmission lines (referred to as A1, A2 and A3) and 5 twisted-pair 110 cables (referred to as pins 1 through 10).

The Master Clock is transmitted from the transmitter to the receiver in a balanced configuration using two 75 coaxial transmission lines. The + phase of the Master Clock is transmitted on A2 while the - phase of the Master Clock is transmitted on A3.

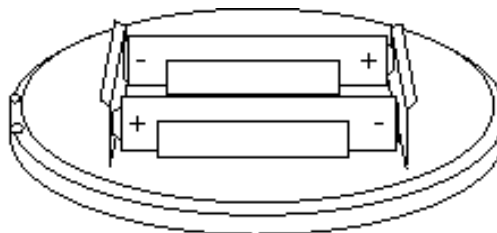
The Bit Clock, Word Clock, Data, and Channel status signals are transmitted from the transmitter to the receiver in a balanced configuration using 4 of the 110 twisted-pair transmission lines.

The Clock Flag is transmitted as single-ended signal with CMOS compatible levels using the remaining twisted-pair line. The driver for this signal sources 10 mA so as to be compatible with receivers that use an input opto-coupler device.

The 13W3 cable's outer foil shield is connected to chassis ground at both ends.

REMOTE CONTROL BATTERY REPLACEMENT

To replace the remote control batteries, unscrew the top of the remote from the base and insert batteries as shown below.



Note: All measurements performed with an Audio Precision System Two test center.
Due to Sonic Frontiers desire to continually improve its products, specifications are subject to change without notice.

We at Sonic Frontiers are sure that you will derive many years of listening pleasure with your new Transport 3 CD Turntable. This Operating Manual contains important information regarding the operation and care of the Transport 3. Be sure to read this manual carefully and follow these instructions in order to keep it looking, operating and sounding its best.



Sonic Frontiers can be reached from 9:00 a.m. to 5:00 p.m., Eastern Standard Time, or 24 hours a day by facsimile.
2790 Brighton Road, Oakville, Ontario, Canada, L6H 5T4 Telephone: (905) 829-3838 Facsimile: (905) 829-3033
E-Mail: SFI@sonicfrontiers.com Web Site: <http://www.sonicfrontiers.com>