north star design

MODEL192

**High Performance
CD-TRANSPORT
192kHz-24bit**

Owner's Manual

Serial #: _____

Revision 2 – 1/09/2005

Thank you for purchasing the North Star Design Model 192 CD-Transport. The Model 192 CD-Transport is an extraordinary value in advanced CD reproduction. Featuring a state-of-the-art Philips CD-PRO2 mechanism and double anti-jitter circuitry, the Model 192 CD-Transport offers reference-level audio performance. The Model 192 CD-Transport is able to upsample the 44.1kHz-16bit until 192kHz-24bit at the I2S digital output ; this allow a direct connection via RJ45 cable within the CD-Transport and the Model192 DAC without an S/PDIF or AES/EBU format conversion. The Model 192 CD-Transport forms an integral part of the enthusiast's modern high-fidelity system.

PRODUCT DESCRIPTION

The Model 192 CD-Transport is based on the latest-generation of CD-PRO 2 Philips mechanism used in high-end CD-player and Transport. To reduce the unwanted resonances and improve the reading capability the CD-PRO2 is decoupled from the metal frame by a soft suspension; this allow a perfect reading of CD, CD-R, CD-RW audio digital data without error. The anti-jitter and upsampling section is based on a Crystal CS8420 and Nippon Precision Circuits SM5849AF upsampler. The CS 8420 upsample the 44.1kHz-16bit to 96KHz-24bit and the SM5849AF upsample until 192kHz-24bit.

Three outputs are provided: one S/PDIF via coax RCA, one AES/EBU via balanced XLR, one I2S via RJ45 connector.

OPERATING INSTRUCTIONS:

CAUTION:

1. **Be careful handling the mains cable**
   Please, pay attention not to damage or stretch the mains cable. Otherwise, risk of electric shock or damage can arise. Keep tightly the mains plug when pulling it away from the wall socket, never pull the cable.

2. **Don't remove the upper cover**
   To avoid shock hazard, please don't remove the upper cover when the equipment is connected to a mains socket or to any other equipment.

3. **Don't insert any object into the equipment**
   Don't insert metallic objects into the equipment and pay attention not to throw liquids on it. Otherwise, risk of electric shock or damage can arise.

WARNING:

The laser pick-up is located behind the spindle.
NEVER look directly into the laserbeam!!!
Under normal circumstances the laser needs no cleaning.
Do not use any kind of cleaning CDs.

UNPACKING THE CD-TRANSPORT

Unpack THE CD-Transport carefully. Save all packaging materials for future shipment. When you move the CD Transport always use the original package.

The content of the carton
1pcs   Model192 CD-Transport
1pcs   RJ45 cable for I2S connection
1pcs   CD clamp
1pcs   Owner's Manual
1pcs   Remote control with batteries

Set-up Procedure
Connecting to Mains Check that the mains voltage printed on the rear panel of the CD Transport corresponds to the line voltage in the territory were you intend to use the unit.
How to avoid damages
A good operating practice is to turn off all equipment before any connections or disconnections are made. Do not under any circumstances connect or disconnect equipment when power is turned on. Connecting or disconnecting equipment with the power on could severely damage both speakers and amplifier(s).
How to avoid noise problems
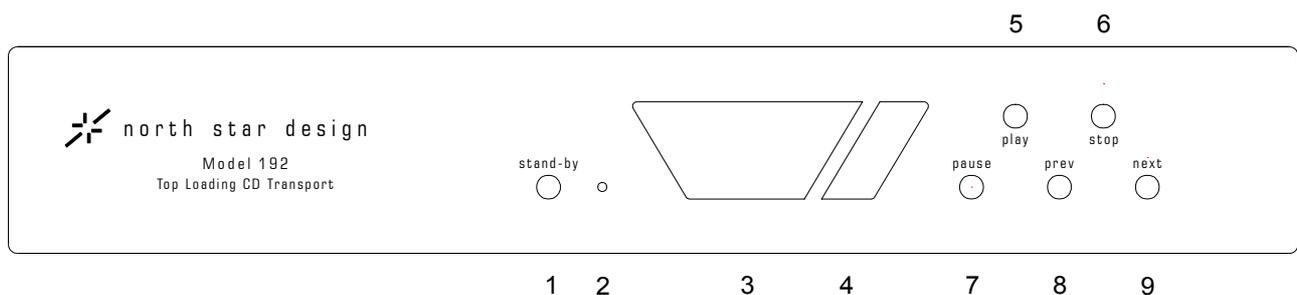The Model192 CD-Transport contains delicate circuits that are sensitive to magnetic strayfields.
The unit should not be place near mains transformers, TVs etc.
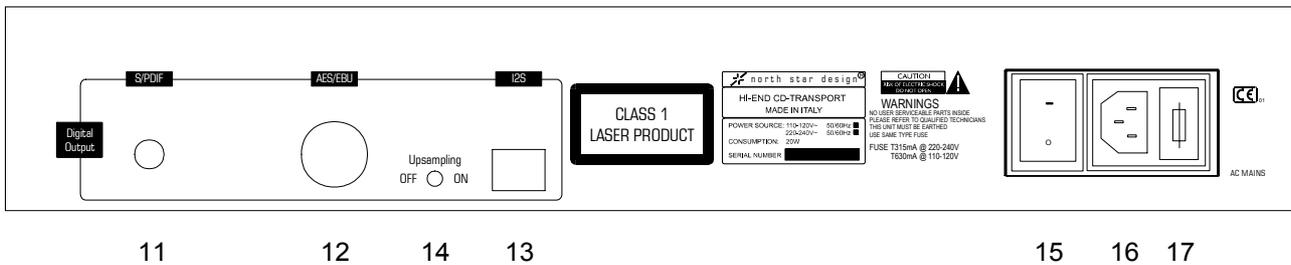### Loading a Disc
Load the disc by gently pushing the metal cover to the left. "Open" is shown on the display. Place the disc on the spindle. Then place the CD-clamp on the spindle. The clamp now securely fastens the disc. Push the metal cover to the right. The CD Player must first read and load vital information from the disc. This process, indicated by a flashing display, takes approximately three seconds. Tracks and total time are displayed. Press start/play and the first track starts to play. When changing a disc, press the stop button on the front panel or on the remote control before opening the drawer.
If the drawer is opened during playback, it will take the disc a few seconds to spin down. Do not touch the disc until it has come to a complete standstill.

Front and rear panel controls

1. Standby pushbutton

When in stand-by mode, push to switch in Operate mode. When in Operate mode, push to switch in Stand-by mode. You need to close the aluminum lid before push the stand-by button otherwise the is not active.

2. Stand-by Led

Glows red when the CD-Transport is in stand-by.

3. Display

4. Remote sensor receiver

5. Play pushbutton

6. Stop pushbutton

7. Pause pushbutton

8. Prev pushbutton

When pressed select the previous track

9. Next pushbutton

When pressed select the next track

10. S/PDIF digital output

A S/PDIF digital standard output (75 Ohm) is avaible always 44.2kHz-16bit

11. AES/EBU digital output

An AES/EBU digital standard output (110 Ohm) is avaible on XLR connector; when the UPSAMPLING switch on the rear panel is OFF the output is 44.1kHz-24bit, when the UPSAMPLING is ON the output is 96kHz-24bit.

12. I2S digital output

An I2S 192kHz-24bit digital signal is available when the UPSAMPLING is ON. Otherwise this output is disabled.

13. **UPSAMPLING Switch**

    When upsampling ON is selected, the upsampling option is avaible to the I2S digital output. **Pay Attention!!!** The position switch is read only at start-up from rear power switch; if you change the switch position while the CD is on no action arise (also with the CD in stand-by). You need to:

1)   Power off the unit from the rear power switch
2)   Change the switch position
3)   Power on the unit; the microcontroller will read the switch position

The 192kHz-24bit digital signal at I2S output is avaible if the UPSAMPLING switch is ON. You need to use this output only in connection with M192 North Star Design DAC at the input 4.
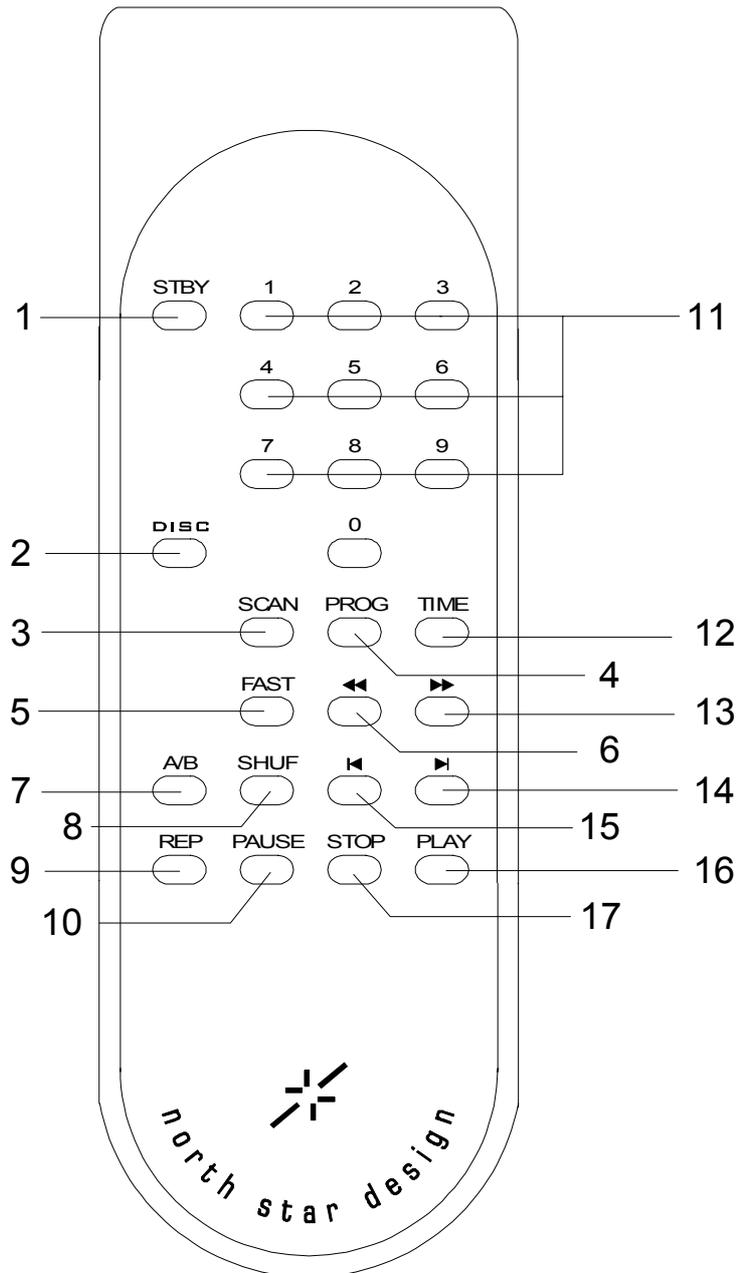
14. **Mains Switch**

15. **Mains Socket**

    Plug in the mains cable before connecting its other end to the wall socket. Check the equipment you own is set to the mains voltage used in your country.

16. **Mains Fuse Holder**

    Use same type fuses only.

REMOTE CONTROL

1. STBY Standby on/off
2. DISC No function.
3. SCAN Play 10 seconds of each track.
4. PROG a. Set the CD player in STOP MODE. b. Select tracks with the numeric buttons, or step to the number using buttons > or < c. Press the PROG button - the track is programmed. Repeat b and c until all the tracks you wish to program is done. After each track is programmed, the total playtime will be shown in the display. If a track with number higher than 13 is programmed, the total playtime will not be shown. You can browse through the tracks with the buttons > and <. On the tracks that already are programmed, you will see a «P» shown in the display. If you wish to remove a track from your program, choose the track number and press PROG. To monitor what is being programmed. Go back to STOP MODE. Press PROG - The display will now show the programmed tracks in the new order. The tracks are now stored in the order you programmed them and not in

the original numeric order. If you press STOP two times your program sequence will be erased.

5. FAST Activate before search for faster search.

6. << Search backwards

7. A/B Repeat a segment of the disc/track. Press the button once to mark the start Press it again at the end of the desired sequence. The selected area will playe continuously until the STOP button is activated.

8. SHUF Tracks will be played in a random order.

9. REP Press this button once and all the tracks will be repeated. The display will show «REPEAT». Press the button again, and it will only repeat the current track. The display will show «REPEAT 1»

10. PAUSE On/off.

11. 0-9 Press these buttons to select a specific track on the disc. For track 10 and above, the se second digit of the number must be pressed within one second.

12. TIME Elapsed time of current track is continuous displayed. First activation will display remaining time of disc. Next press will show total time of loaded disc.

13. >> SeReplacing remote control batteries

Replace used batteries by gently inserting your fingernail or small screwdriver in the groove on the left side of the battery compartment cover. Lift the cover off, and insert a fresh set of batteries. Be careful to follow the + and – polarity indications at the bottom of the battery compartment. Battery: 2 x LR03 / AAA: 1.5Volts.

TECHNICAL SPECIFICATIONS

Dynamic Range:	100dB
S/N Ratio:	100dB
Outputs:	1 S/PDIF on RCA (75 Ohm),
	1 AES/EBU on XLR balanced (110 Ohm)
	1 I2S (RJ45)
Mains/Power Consumption:	230/115V 50/60Hz 20VA
Chassis size:	43,3 x 17 x 7.5 cm
Weight (with envelope):	7.5 Kg