

FULCRUM

TX24 BIT COMPACT DISC
TRANSPORT

~USERS MANUAL~

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Introduction

Thank you for selecting the Tube Technology FULCRUM Compact Disc Transport.

Please read through this manual so you will know how to operate your Fulcrum properly. After you have finished reading this manual, please put it away in a safe place for future reference.

We have done our utmost in the design and build of the Fulcrum to ensure you a low maintenance, trouble free CD Player that will bring you many years of pleasure as an important part of your hi-fi system.

Please do not forget to complete and return the enclosed registration card.

We wish you many hours of musical enjoyment !

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Conventions

This manual uses the following conventions;

Bold indicates emphasis or a minor heading.

Italic Bold refers to a sub heading of a chapter.



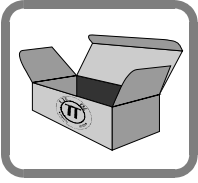
This symbol refers to Notes containing important information set off from the text.



THIS SYMBOL REFERS TO CAUTION MESSAGES AND PROCEDURES WHICH IF NOT OBSERVED CAN LEAD TO DAMAGE OR INJURY

1

Getting Started



Unpacking



This chapter contains information on;

- *Unpacking your Fulcrum Transport*

Your Fulcrum Transport is packed in "polystyrene" end-caps. Grip the unit from the middle and simply pull it out of the box. Remove the end-caps and polythene bag.

All packing should be retained. Equipment returned can only be accepted in the original packaging.

The following items are included in the packaging of a Fulcrum Transport;

- 1 x Fulcrum Transport
- 1 x Remote Control Handset
- 1 x IEC Mains Leads
- 1 x Users Manual

Mains Connection



Mains Connection



Wiring a Mains Plug



This chapter contains information on;

- *Connecting the Fulcrum Transport to the household mains supply.*
- *Wiring a mains plug (UK)*


Your Fulcrum Transport plugs into the mains supply via the IEC socket located on the back panel (see diagram 1). Connect your transport to the wall socket using the IEC mains lead supplied in the packaging. The transport has been factory set to the correct mains voltage for your country. The voltage setting is marked on the serial badge, located on the rear panel. (See diagram 1). Check that this voltage complies with your local supply. Also make sure that your mains outlet is able to deliver the required current for the equipment plugged into it. The wattage rating is also marked on the serial badge.

WARNING - THIS APPARATUS MUST BE EARTHED

DO NOT CONNECT/SWITCH-ON THE MAINS SUPPLY TO THE TRANSPORT BEFORE COMPLETING ALL OTHER CONNECTIONS. IF YOU ARE IN ANY DOUBT REGARDING MAINS CONNECTIONS PLEASE DO NOT PROCEED ANY FURTHER WITHOUT CONSULTING YOUR DEALER.

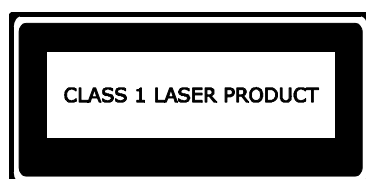
Export units for certain markets have a moulded mains plug fitted to comply with local standards. If your mains supply lead does not have a plug fitted, the coloured wires should be connected to the appropriate plug terminals in accordance with the following code.

Wire Colour Label on Plug

GREEN/YELLOW **E** or EARTH or 
 BLUE **N** or NEUTRAL or BLACK
 BROWN **L** or LIVE or RED

If your mains plug has a fuse, please fit a fuse with **5A** rating.

If your Transport is not set correctly for the local supply or if you intend to move the unit to a location where the supply is at a different voltage, please contact your dealer.



The Label illustrated here, informs the consumer that the unit contains a laser component.

Under no circumstances should covers be removed when the unit is powered, the Laser can damage your eyesight.

Digital Connection

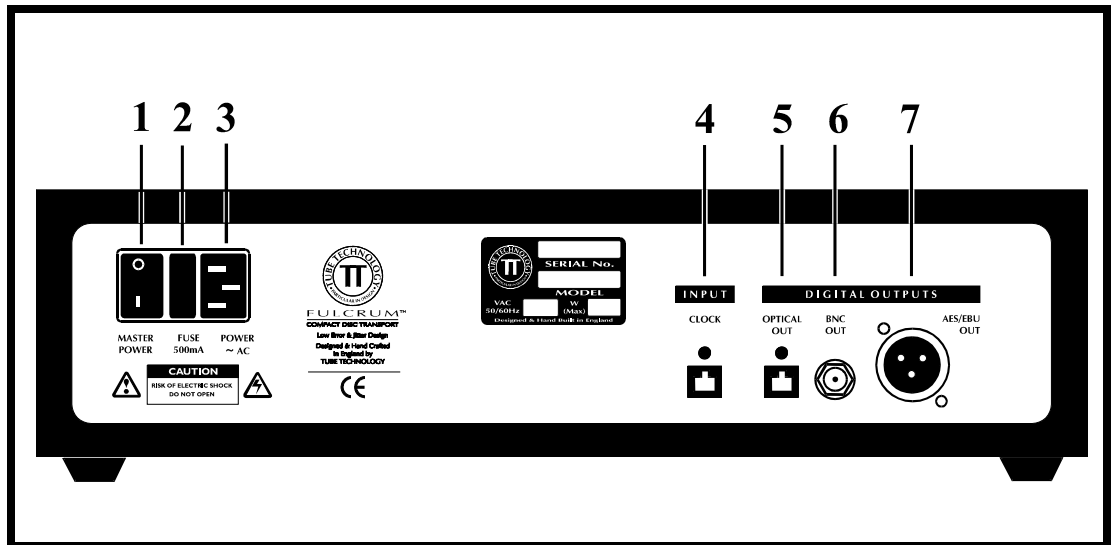


This chapter contains information on;

- *Connecting the Digital Outputs*

Your Transport uses high quality connectors to ensure that maximum signal transfer is possible, therefore ensure that all cables used for connection to the Transport are terminated with connectors of similar quality.

Diagram 1



Connect either the OPTICAL (5) or BNC (6) or AES/EBU (7) Digital Outputs to the input on the external D.A.C. you wish to use. The Digital Outputs are 24 Bit 44.1 kHz.

A CLOCK (4) input is also provided which 'Clock Locks' the Transport & DAC together, utilizing optical cables without introducing jitter.



**DO NOT SWITCH-ON THE SYSTEM UNTIL YOU HAVE READ CHAPTER 5
Operating Your System.**

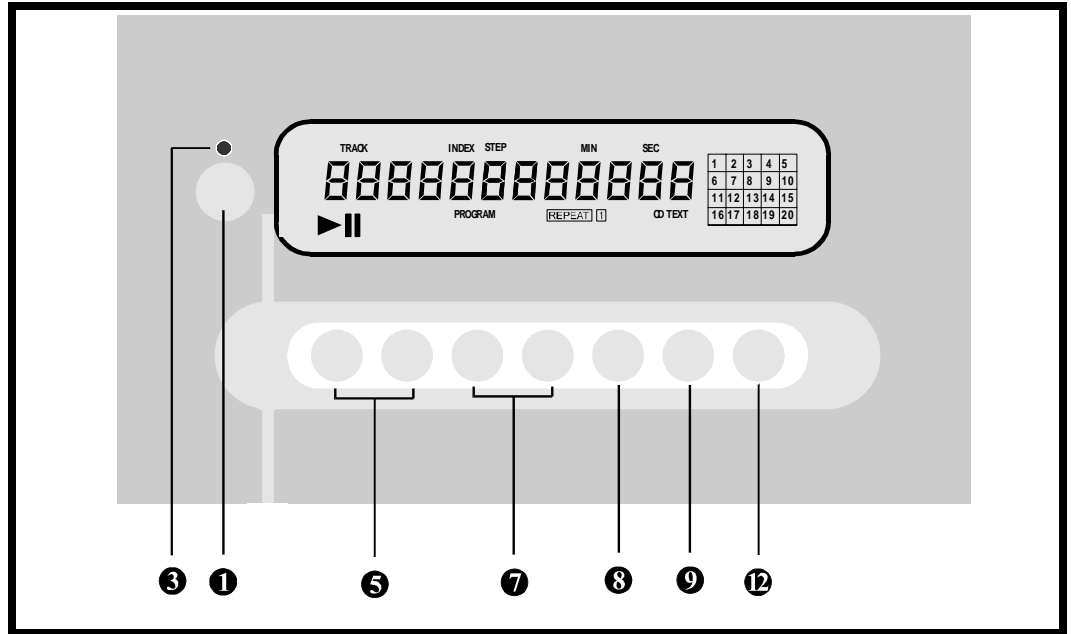
Operating your System



Diagram 2
Front Panel

This chapter contains information on;

- *Operating the Fulcrum CD Transport*



1 Numbers in the circles relate to the Front Panel - *Diagram 2*

A Letters in the ellipses relate to the Remote Control Handset - *Diagram 3*

Operating the CD Transport

Switch on the MASTER SWITCH (1) located on the rear panel, See Dia.1. The display should now be illuminated.

1 **P** **O** **W** **E** **R** - Pressing the POWER button on the front panel puts the CD Transport into Stand-by Mode and LED **2**s illuminated. To completely power down the whole unit switch the Master Switch on the rear panel to the OFF position.

5 **Q** **I** << **S** **K** **I** **P** >> Skips between tracks during play **I**<< for previous track or >>**I** for next track. Also used for direct track access before pressing PLAY.

7 **R** **G** << **S** **E** **A** **R** **C** **H** >> Searches audibly either backwards or forwards through a track to a particular point as desired. If SEARCH is used when the disc is in PAUSE mode, search is engaged inaudibly.

8 **F** **S** **T** **O** **P** Stops the disc from playing or clears Program setting. The total number of tracks and the total playing time will appear briefly on the display panel to indicate that the player is in STOP mode, followed by **0** on the display.

Program Track Selection

9 H PLAY > The track selected on the display will play. Pressing it again on the front panel during play will **PAUSE II** the disc. To release from Pause press **II H** on the Remote or **(9) PLAY/PAUSE** on the front panel.

12 D EJECT This opens and closes the CD drawer. Place the CD in the tray blank side facing down, printed side face up. To close the drawer press the TRAY button again or gently push the front of the drawer.

REMOTE SENSOR: -F.Panel

This is the receiver for the infrared commands sent from the remote handset. It is hidden behind the display window. Aim the remote control at this sensor.

You can arrange the order of the tracks on a disc by creating your own program. The Program can contain up to 24 tracks. Select the desired track number using the SKIP command **I O** on the Handset or enter directly using the numeric keys **L**. After selecting this first track in your program Press the PROG **T** button, the display will show the track number and the total playing time for the chosen track. As each consecutive track is added to your program, this time display shows the total playing time. Select the next track in your program and the display will flash the chosen track, STEP 2 will also flash in the display indicating the position in your program. Press PROG once again to confirm your second choice. To select a track with a number over 10, use the numeric keys, (ie. 21), press 2 then 1, then PROG. If tracks are programmed out of sequence (ie. 8,1,7) a one second access time blank is added between tracks.

During programming an individual STEP can be cleared using the **B** CLEAR command. Use the SKIP button to locate the desired STEP in your program and press the CLEAR button to remove.

To clear the program completely, press STOP or EJECT.

K REPEAT

Plays the current track or the entire disc again and again. Also repeats Programmed tracks.

The figure 1 is displayed beside REPEAT in the display when just one track is on repeat, otherwise the complete disc will repeat.

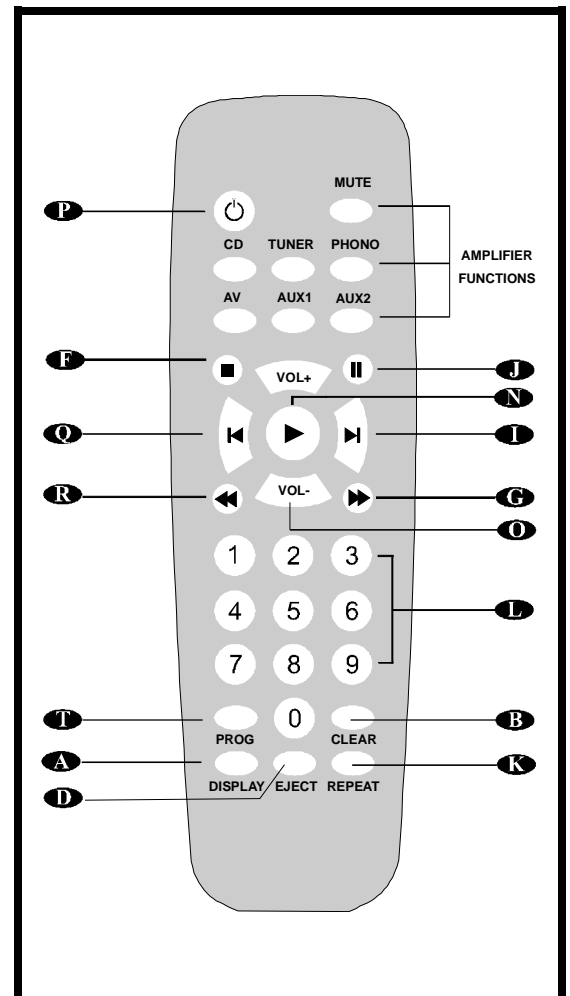
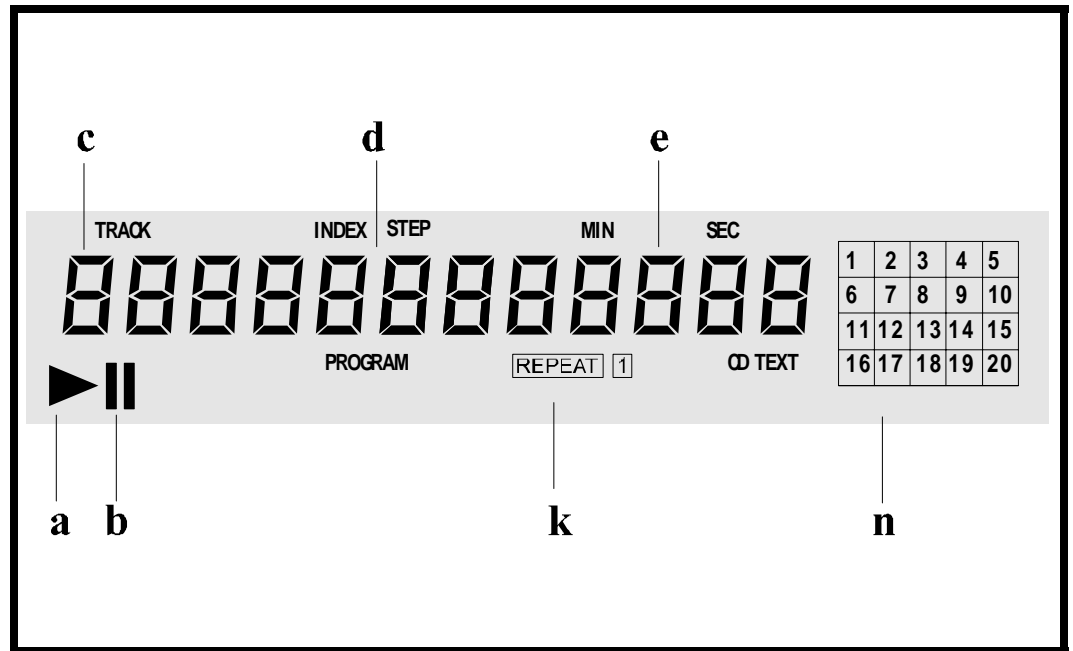
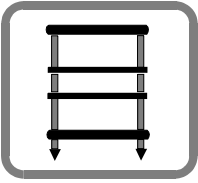


Diagram 4
Display



- a.** PLAY - Illuminated when a disc is playing.
- b.** PAUSE - Illuminated when the player is in PAUSE mode.
- c.** 88 - Indicates the track number selected.
- d.** 88 - Indicates STEPs during programming, or indexes within Tracks
- e.** 88:88 - Indicates the total disc time and running time for the track
- n.** MUSIC CALENDAR - Shows the track number playing on the disc or the tracks which have been programmed using the PROG command.

Installation

This chapter contains information on;

- *Installing your Transport*

Installing & Ventilation

Ensure that the Transport is placed in a stable location that is able to accept its weight, each unit weighs 6 kilograms.

Isolated shelves and/or isolating feet under the unit helps prevent micro-vibrations (generated in the room while playing music) from disturbing the internal vacuum tube structure, and digital electronics, implementing the use of these will further enhance sound quality.

Dedicated racks are available for housing your tube equipment, contact your dealer or Tube Technology for further information.

Do not locate the Transport close to radiators or any other heat source, this could increase the operating temperature.

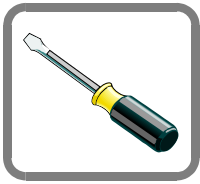
Do not locate the Transport too close to a turntable, as the cartridge could pick up hum from the power transformer.

***Burning-In***

"Burning-In" is a generic term given to the basic 'running-in' of the Transport. You may notice a slight 'electronic-smell' from your player during the first few days of operation. This smell is usually caused by various prints and dyes used on the components which takes some time to evaporate. This is quite normal and there is no need for concern as your Transport has been extensively soak tested before leaving the factory. This burning-in process continues with your use of the player.

This process simply allows for new components like silicon chips, capacitors and resistors to settle and 'sweeten' enhancing the Transport sonic performance.

Maintenance



Care & Cleaning



Care & Handling

Cleaning CDs

This chapter contains information on;

- *Care and Cleaning of your Transport*
- *Vacuum Tubes*
- *Compact Discs Care & Handling*

Do not clean the units with water as this smears the surface and can leave water marks. Anodised parts such as the front panel & painted parts such as the top & bottom cover are best cleaned with a damp cloth then buffed with a dry cloth. Polished parts are best cleaned with a soft duster, and wax free polish. A good tip to keep the front panel dust free is to regularly dust the unit with a soft make-up brush or paint brush.

This unit has been designed to play compact discs bearing the identification logo as pictured in the left margin. No other discs can be played.

1. Always place the compact disc in the disc tray with the label facing upward. Compact discs can only be played on one side only.
2. CDs are still fragile items and can easily be scratched. Return discs back to their cases after use.
3. Do not expose discs to direct sunlight, high humidity or high temperatures for extended periods. Long exposure to high temperatures can warp the disc.
4. Do not stick paper or write anything with a ballpoint pen on the disc surface.

Finger prints and dust should be carefully wiped off the disc's signal surface (glossy side) with a soft cloth. Wipe in a straight motion, from inside to outside of the disc. Small dust particles and light stains should not impair quality, but deep scratches will effect performance or even be un-playable.

Never use such chemicals as record sprays, antistatic sprays or fluid, benzine or thinner to clean compact discs. Such chemicals would irreparably damage the discs plastic surface.

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Troubleshooting

Symptom	Remedy
No Power when the POWER button is depressed.	<ol style="list-style-type: none">1. Check you have pushed the IEC mains cable firmly into the socket on the rear panel.2. Check that MASTER POWER switch on the rear panel is in the ON position.
Disc play does not start	<ol style="list-style-type: none">1. Ensure the CD is the correct side up, & is clean
Program Mode does not function	<ol style="list-style-type: none">1. The player is in PLAY mode, press STOP
Sound is skipping	<ol style="list-style-type: none">1. Ensure the player is not being vibrated by loudspeaker etc..2. If problem persists the disc is most probably damaged

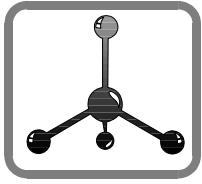
Table 1



UNDER NO CIRCUMSTANCES SHOULD AN UNQUALIFIED PERSON REMOVE THE COVERS OF AN AMPLIFIER.

7

Specifications



SUMMARY

- 1 x AES/EBU output (24 Bit 44.1 kHz)
- 1 x Optical output (24 Bit 44.1 kHz)
- 1 x BNC digital output (24 Bit 44.1 kHz)
- 1 x Optical Clock input (128 x Frequency sampling 44.1 kHz)
- Full System Compatible Remote Control Handset
- Dimensions - 410 (W) x 350 (D) x 95 (H) mm
- Weight = 6 Kg

Guarantee



Guarantee

This chapter contains information on;

- *The Guarantee of your Fulcrum CD Transport*
- *Registration*
- *Claims under this Guarantee*

This equipment has been fully tested and a full record of these tests made before despatch from the factory. Both the workmanship and the performance of this equipment are guaranteed against defects for a period of TWO YEARS from the date of purchase, provided that it was originally purchased from an authorised dealer under a consumer sale agreement, at or near the recommended retail price. (The words "consumer sale" shall be construed in accordance with section 15 of the Supply of Goods (Implied Terms) act 1973).

This guarantee covers both labour and parts and is transferable to subsequent purchasers but the liability of the manufacturers is limited to the cost of repair or replacement (at the discretion of the manufacturers) of the defective parts and under no circumstances extends to consequential loss, damage or shipping charges.

The manufacturers can accept no responsibility for defects arising from accident, misuse, wear and tear, neglect or through unauthorised adjustments and or repair, neither can they accept responsibility for damage or loss occurring during transit to or from the person claiming under this guarantee.

Registration

Please complete the registration card and return it to Tube Technology. **Your guarantee is invalid without registration.** To transfer this guarantee to subsequent purchasers, the new owner must notify Tube Technology of their name, address and serial numbers of the equipment.

Claims under this Guarantee

This equipment should be packaged in the original packaging and returned to the dealer from whom it was purchased or, failing this, any other authorised Tube Technology dealer. If it is not possible to return the equipment by hand then it should be sent carriage prepaid by a reputable carrier. Should the original packaging not be available replacement packaging can be purchased from the manufacturers. The equipment should not be sent by post.



DO NOT CONSIGN THE EQUIPMENT TO TUBE TECHNOLOGY UNLESS YOU HAVE FIRST BEEN SPECIFICALLY REQUESTED TO DO SO BY THE MANUFACTURERS TECHNICAL SERVICE DEPARTMENT. DO NOT UNDER ANY CIRCUMSTANCES ATTEMPT TO DISASSEMBLE THE EQUIPMENT BEFORE DESPATCH.
