

ZERO ONE



Ti 48

ARCHIVAL CD/HD TRANSPORT

INSTRUCTION MANUAL

Contents

QUICKSTART

PAGE		DESCRIPTION
5	1	Mains Power
5	2	Audio Connections
5	2.1	• Digital out
5	2.2	• I2S cable connection
6	2.3	• S/PDIF digital coaxial cable connection
6	3	Start up / Shut down
6	3.1	• How to start up
6	3.2	• How to shut down
7-8	4	Guide to the LCD screen and remote control handset
8	5	CD Playback
8	5.1	• CD playback vs HD playback
9	5.2	• How to play a CD
9	5.3	• Other playback functions
10	5.4	• What is EmDB
10	6	Archiving Music
10	6.1	• Hard-disk capacity / general info
10-13	6.2	• How to archive a CD
13	7	Archived Music Playback
13	7.1	• HD Player mode
13-15	7.2	• How to play back music in HD Player mode
15	7.3	• What is a playlist
15	7.3.1	- Playlists in HD player mode
15	7.3.2	- Types of playlists
15	7.3.3	- Current vs saved playlists
16	8	Digital Output Settings
16	8.1	• What are the output settings options
17	8.2	• How to access the output settings menu
17-18	8.3	• Output settings example

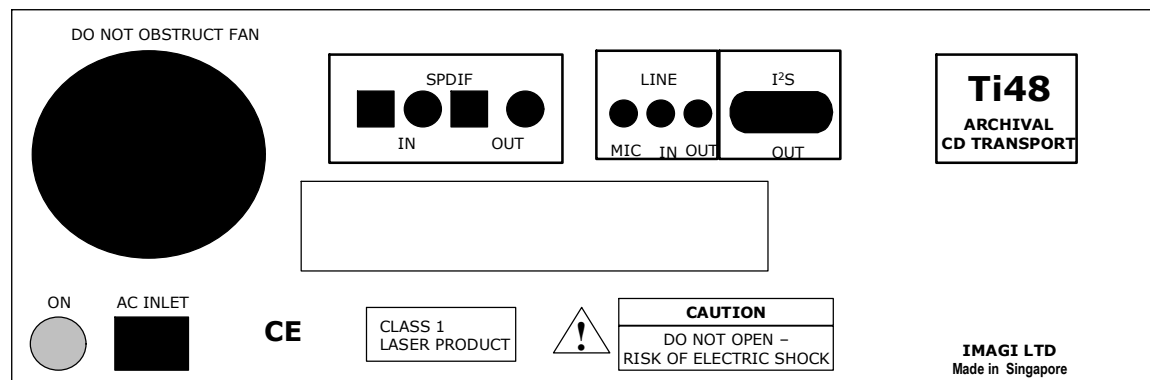
USER MANUAL

PAGE		DESCRIPTION
20	9	CD Player Mode
20	9.1	• Options Menu
20	9.2	• Grab Album : how to archive a CD (see 6.2 for details)
20	9.3	• Grab Album Subset : how to archive part of a CD
21	9.4	• Grab Tracks : how to create a compilation album of tracks from more than one CD
22	10	HD Player Mode
22	10.1	• Options menu
23	10.2	• Change Playlist : how to select albums/playlists from archived music (see 7.2 for details)
23	10.3	• Add Playlist : how to add albums/playlists to a current playlist
24	10.4	• Add Tracks : how to add tracks to a current playlist
24	10.5	• Edit Playlist : how to de-select tracks from a current playlist
25	10.6	• Clear Playlist : how to de-select a current playlist
25-26	10.7	• Save Playlist : how to save a current playlist to the hard-drive
27	11	HD Editor Mode
27	11.1	• Options Menu
27	11.2	• Change Track Info : how to edit the name and details of archived tracks
28	11.3	• Delete Track(s) : how to delete track(s) from the hard-drive
29	11.4	• Rename Album : how to change the name of an archived CD/album
30	11.5	• Rename Artist : how to change the artist/group name of an archived CD/Album or Saved Playlist
31	11.6	• Delete Artist : how to delete an artist/group and all the associated archived CDs or tracks of that artist/group
32	12	Output Settings
32	12.1	• Options Menu
33	12.2	• Details of the Digital Processing Options
33	12.2.1	- Upmode
33	12.2.2	- Uprate
34	12.2.3	- Dither
34	12.2.4	- Wordlength
34	12.2.5	- Phase
34	12.2.6	- Digital Attenuation
34	12.2.7	- Device

PAGE		DESCRIPTION
35	13	System Setup
35	13.1	• Options Menu
35	13.2	• Autoplay : enables CD playback without pressing PLAY on the remote control
36	13.3	• EmDB off : how to turn CD recognition system off
36	13.4	• Version Information : software version currently loaded
36	13.5	• Update CDROM Normal : how to load new software
36	13.6	• Forced Update : how to re-load an older software version
36	14	Software Updates
36	14.1	• Transport software
	14.2	• EmDB

QUICK START

BACK PANEL OF TI48



1. MAINS POWER

- 1.1 Connect the supplied mains power cable to the IEC socket on the back panel of the Ti48 labelled “AC INLET”.
- 1.2 Connect the wall plug of the mains cable to the wall mains socket.
- 1.3 Turn on the wall mains socket.

SAFETY NOTE : the mains power to the Ti48 is always on when the wall socket is on (even when the Ti48 is in a non-operational state eg. when the display screen is off).

In order to remove mains power from the Ti48, you must turn off the mains power at the wall socket.

2. AUDIO CONNECTIONS

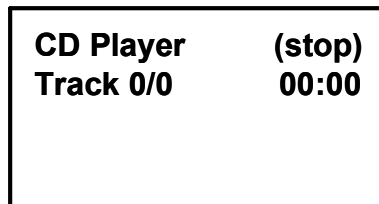
- 2.1 The Ti48 is a digital audio storage system and CD transport; the output from its external connectors (I²S or SPDIF) are purely digital signals. It does not output an analogue (music) signal. In order to output a music signal, you must connect the Ti48 to an external digital-to-analogue converter (DAC) to convert the digital audio into an analogue signal. The analogue outputs of the DAC should then be connected to the inputs of a pre-amplifier or integrated amplifier.
- 2.2 If you are using a Zero One DAC eg. Ar38, connect the Ti48 to the DAC using the supplied I²S cable. The 25-pin (large) end of the I²S cable is connected to the Ti48 at the 25-pin connector marked “I²S OUT” and the 15-pin (small) end to the Zero One DAC at the connector marked “DIGITAL IN”

and “I²S ”. The output device is set to S/PDIF by default. See Sections 12.2.1 and 12.2.7 (Device) in the User Manual for details on how to set-up the Ti48 to output via the I²S connection. Follow the instructions for the DAC to select the I²S input.

- 2.3 If you are using another manufacturer’s DAC, connect the Ti48 to the DAC using a digital cable with a coaxial (RCA) connector (not included). The cable should be connected to the Ti48 at the connector marked “SPDIF OUT”. The output device is set to S/PDIF by default. If this has been changed, see Sections 12.2.1 and 12.2.7 (Device) for details on how to set-up the Ti48 to output via the S/PDIF connection. Refer to the DAC’s instruction manual for how to connect the digital cable to the digital input of the DAC.
- 2.4 The remaining connectors on the back panel of the Ti48, marked : “SPDIF IN” and “LINE : MIC / IN / OUT” are currently not operational.

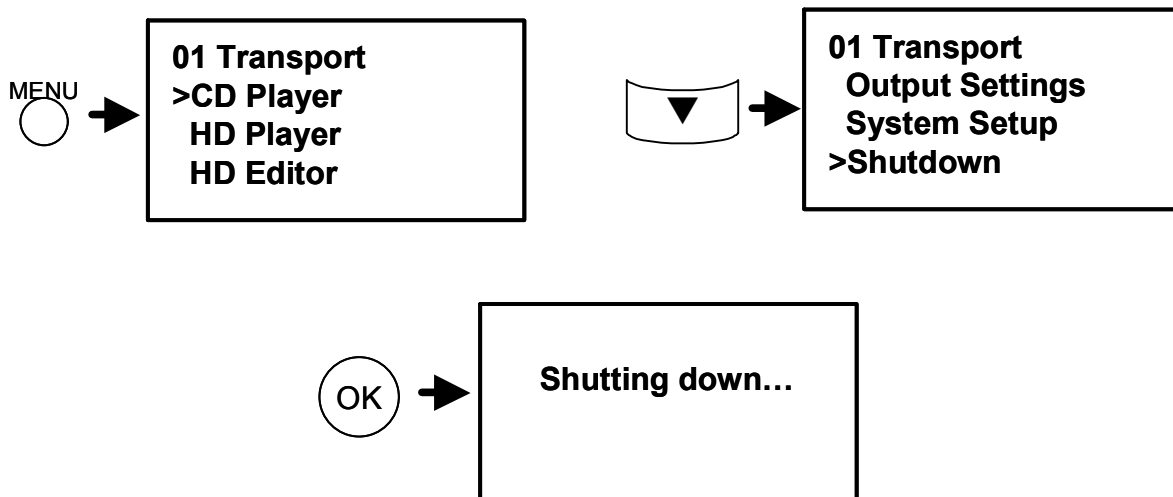
3. START UP / SHUT DOWN

- 3.1 To start up the Ti48, press once – firmly - on the button labelled “ON” (back panel). The Ti48’s LCD screen will light up and the unit will take about 30 seconds to start up. It will be ready to accept remote control commands when the screen reads :



CAUTION : When the Ti48 is running, do not press the “ON” button again. Doing so may damage the hard-disk drives and will result in a longer delay on start up the next time.

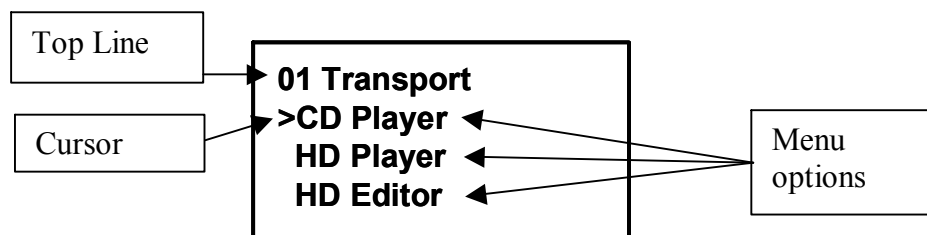
- 3.2 To shut down the Ti48, press the **MENU** key on the remote control handset to access the mode menu , use the arrow keys to move the cursor down the menu shown on the screen When the cursor is at “**Shutdown**”, press the **OK** key.



4. GUIDE TO THE LCD SCREEN & REMOTE CONTROL HANDSET

LCD SCREEN

When the **MENU** or **OPTS** keys are pressed, the LCD screen will look like this :

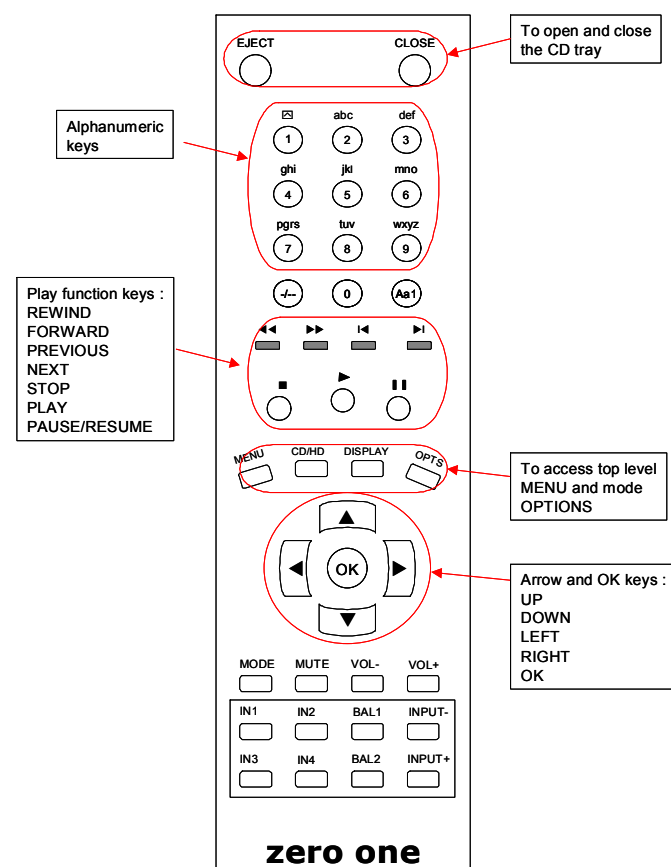


The top line will show either the mode which the Ti48 is in eg. CD Player or HD player; or it will show the function eg. change playlist.

The cursor shows which menu option will be selected if the OK button is pressed. The cursor can be moved using the UP/DOWN arrow keys.

Note : The LCD backlight comes on when a key on the remote control is pressed and will stay on for 10s. To see the screen without sending a command to the software, press **DISPLAY** on the remote control

REMOTE CONTROL HANDSET






Remote Control Keys	Functions
EJECT	Ejects the CD tray.
CLOSE	Closes the CD tray. This will only work when the Ti48 is in CD Player mode
MENU	Accesses the main MODE menu (ie. CD Player; HD Player; HD Editor; etc)
OPTS	Accesses the OPTIONS menu(s) for each MODE
PLAY/STOP/NEXT/PREV/FFW/REW	These operate in the same way as most CD player control keys. Refer to Section 5.3 for a full description of the key functions.
1 , 2 , 3..... 0 Note : “0” is “10”	The function of these keys changes depending on operating MODE/OPTIONS. In CD Player or HD Player MODE, these keys allow selection of track numbers. When Grabbing CDs, these keys are alphanumeric and can be used to enter the artists names, album and track titles
Aa1	In text entry mode, this key changes the alphanumeric keys from capital letters to small letters to numbers.
-/--	Allows selection of numbers greater than 9
ARROW KEYS : UP/DOWN/LEFT/RIGHT	Allows user to move up (UP) or down (DOWN) menus and to select options in those menus (RIGHT) or return to the menu lists (LEFT)
OK	To confirm selection of specific menu items
DISPLAY	Turns LCD backlight on/off - LCD backlight will stay on for 30s

5. CD PLAYBACK











- 5.1 The Ti48 can either play CDs (CD Player mode) or play music archived in the hard-disk drives (HD Player mode). No music is archived in the Ti48 hard-disk drives when the unit is new. See Section 6 for details on how to archive CDs and playback music

On start-up, the Ti48 goes into CD Player mode.

- 5.2 To play a CD

	Remote Control Key(s)	Front Panel Screen
Open the CD tray and load CD	EJECT 	CD Player (stop) Track 0/0 00:00
Close CD tray If the CD is recognised by EmDB, the screen will show the names of the artist/group and CD. If the CD is not recognised by EmDB, the screen will read : “ Unknown Artist ” “ Unknown Album ”	CLOSE 	CD Player (stop) Track 0/12 00:00 “ Album name ” “ Artist name ”
To play CD		CD Player (play) Track 1/12 00:31 “ Track name ” “ Artist name ”

5.3 Other Playback Functions

To stop playback	
To pause playback (and resume playback)	
To rewind or fast forward	 
To select previous track or next track	 
To select tracks by number track 3 track 12	 def    abc

5.4 What is EmDB

The Ti48 hard-disk drives contains a CD-recognition software known as EmDB. This is a compressed version of the FreeDB database which is available on the internet : www.freedb.org.

EmDB will recognise millions of CDs, providing information on the artist/group name, the album title and, in most cases, track titles as well. All this information has been (and continues to be) entered into the FreeDB database by the general public.

As FreeDB is a continually updated database, your EmDB can be out of date with regards to the latest CD releases. EmDB can be updated by a CDROM available periodically from Zero One Audio.


6. ARCHIVING MUSIC




6.1 The Ti48 has 250Gb of hard-disk drive capacity which will allow about 380 hours of uncompressed CD audio to be archived.










A whole CD can be archived or part of a CD (album subset) or just a few tracks from a CD.









Once archived, the audio albums and individual tracks can be organised into playlists. The file data associated with the albums and tracks can be edited and organised(see User Manual for full details on audio file management).

6.2 To archive a CD (album)

	Remote Control Key(s)	Front Panel Screen
Make sure Ti48 is in CD Player mode. Load the CD into CD tray and close the tray	See Section 5.2	<div> CD Player (stop) Track 0/12 00:00 "Album name" "Artist name" </div>
Open mode OPTIONS	OPTS 	<div> CD Player > Grab Album Grab Trk(s) to HD Grab Trks->Plylst ▪ </div>

<p>Confirm.</p> <p>If the CD is recognised by the EmDB database, the archiving will begin immediately.</p> <p>The “Grab” process will be completed when the screen returns to the main CD playback screen.</p>		<div data-bbox="916 215 1297 416" style="border: 1px solid black; padding: 5px;"> <p>Grab (copy) Track 1/12 00:31 “Album name”</p> </div>
<p>If the CD is NOT recognised by the EmDB database, the system will prompt you to enter the artist/group name and CD/album name.</p> <p>NOTE : You do not have to enter the full names or even the actual names but you must enter some information for the system to file and retrieve the CD/album in future for playback.</p>		<div data-bbox="916 658 1297 860" style="border: 1px solid black; padding: 5px;"> <p>Grab Album – Name</p> <p>>Art : _ Alb :</p> </div>
<p>Use left/right arrow key to move the cursor to the “new artist” field</p> <p>Confirm that you wish to enter the name of the artist/group</p>	 	<div data-bbox="940 1171 1321 1373" style="border: 1px solid black; padding: 5px;"> <p>Grab Album – Name</p> <p>>Art : (new artist) Alb :</p> </div> <div data-bbox="940 1435 1321 1637" style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Add New Artist ART :</p> </div>


<p>Use alphanumeric keys to enter artist/group name e.g. to enter the name : “Test”</p>	<p>T : </p> <p>A ➡ a : </p> <p>e :  x 2</p> <p>s :  x 4</p> <p>t : </p>	<div> <p>Add New Artist ART : Test</p> </div>
<p>Confirm artist/group name</p> <p>Move cursor to “Alb” line</p>	<p></p> <p></p>	<div> <p>Grab Album – Name</p> <p>Art : Test > Alb :</p> </div>
<p>Use the right arrow key to move the cursor to the “new album” field</p> <p>Confirm that you wish to enter the name of the CD/album</p>	<p></p> <p></p>	<div> <p>Grab Album – Name</p> <p>Art : Test > Alb : (new album)</p> </div> <div> <p>Add New Artist ALB :</p> </div>












<p>Use alphanumeric keys to enter CD/album name e.g. to enter name "Rock1"</p>	<p>R :  x3</p> <p>A ➔ a : </p> <p>o :  x3</p> <p>c :  x3</p> <p>k :  x2</p> <p>a->1 : </p> <p>1 : </p>	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Grab Album – Name</p> <p>Art : Test > Alb : Rock1</p> </div>
<p>Confirm names to proceed with archiving.</p> <p>The archiving will begin immediately.</p>		


7. ARCHIVED MUSIC PLAYBACK

7.1 To playback music that has been archived in the Ti48, the unit must be in HD Player mode.

7.2 To play music in HD Player mode

	Remote Control Key(s)	Front Panel Screen
Open mode MENU	MENU 	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>01 Transport >CD Player HD Player HD Editor</p> </div>

<p>Move cursor down to “HD Player” line</p> <p>Confirm selection The current Playlist will be displayed on the screen. If there is no Album loaded, go to “Change CD/Playlist”.</p>	 	<div> <p>HD Player (stop)</p> <p>Track 0/12 00:00</p> <p>“Album name”</p> <p>“Artist name”</p> </div>
<p>To playback this CD/album or Playlist, press PLAY</p> <p>All other playback functions work in the same way as in CD Player mode (see 5.2 and 5.3)</p>		
<p>To play another CD/album or playlist saved in the Ti48 go to “Change CD/Playlist”</p> <p>Open mode OPTIONS</p> <p>Confirm selection</p>	<p>OPTS</p>  	<div> <p>HD Player</p> <p>> Change CD/Playlist</p> <p>Add to Playlist</p> <p>Add Track(s)</p> </div>
<p>With the cursor at the “Art” line, find the CD/album or playlist name</p> <p>Use the arrow keys to scroll alphabetically through the artist/group names; OR</p> <p>Use the REW or FWD keys to jump 5 names backwards or forwards; OR</p> <p>Use the alphanumeric keys to find an artist/group name by the first letter</p>	     	<div> <p>HD – Change Playlist</p> <p>> Art : __</p> <p>Alb :</p> <p>Ply :</p> </div>

<p>When the artist/group has been selected, scroll down to the “Alb” line to find the name of the CD/album or playlist</p> <p>Use arrow keys or REW/FWD or alphanumeric keys to find the CD (album) or playlist name</p>		<div style="border: 1px solid black; padding: 5px;"> <p>HD – Change Playlist Art : “Artist name” > Alb : Ply :</p> </div>
---	---	---

7.3 What is a Playlist

7.3.1 A playlist is basically a file, containing audio data that has been archived, that is ready for playback in **HD Player mode**. It does not apply in CD Player mode. Playlists are useful for creating compilations of archived CDs and/or tracks for specific purposes.

7.3.2 A playlist can be :

- A selected album ie. an archived CD that is ready for playback
- A number of selected albums that will be played back sequentially
- One or more selected tracks from different albums that will be played back sequentially
- A combination of selected album(s) and track(s) that will be played back sequentially
- A previously saved file containing any of the above (see “saved” playlists below).

7.3.3 Current vs Saved Playlists

- A “current” playlist is one that has been selected and is ready for playback.
- A “saved” playlist is one that was created earlier and has itself been archived. Note that a “saved” playlist can only be created from audio data that has already been archived. This function can be useful for creating compilations of tracks from different CD/albums under similar musical styles eg. genres, or for specific playback purposes eg. hifi test music or party music. “Saved” playlists can be given their own artist/group and album names eg. a playlist compilation of heavy metal bands could be given the artist/group name : Headbangers.

7.3.4 To create and manage playlists, see sections 10.3 to 10.7 in the User Manual.

8. DIGITAL OUTPUT SETTINGS

- 8.1 The Ti48 has a number of user-selectable digital filters, upsampling rates, upsampling wordlength, and dither options. In addition, you can select the output connection to be used, the phase and the signal attenuation level.

The full set of functions and options are listed below :




Function	Options
Upmode (digital filter)	None / Purist / HQ1 / HQ2 / HQ3
Uprate (upsampling frequency) Note : only for DACs capable of receiving data greater than 16-bit/44.1kHz.	44100Hz / 48000Hz / 88200Hz / 96000Hz / 176kI2S (176.4kHz only via I²S output) / 192kI2S (192kHz only via I²S output)
Dither	None / TPDF / Nshape / Nyquist
Wordlen (upsampling wordlength) Note : only for DACs capable of receiving data greater than 16-bit/44.1kHz.	16-bit / 18-bit / 20-bit / 24-bit
Phase	Normal / Inverted
SigAttn (signal attenuation)	None / 3dB
Device (output connection)	S/PDIF / I2S

For a more detailed explanation of each function and the user-selectable options, please refer to section 12.

CAUTION : Not all filter/upsampling frequency combinations are suitable for critical (or pleasant !) listening ! Some combinations will emit a significant amount of inaudible high frequency noise which may affect the equipment used downstream of this device. These combinations have been allowed only to ensure continuity of operation when changing output settings on the fly. See Section 12 for more information.


























As there are many output settings options available, you should be able to tune the Ti48 to suit your musical tastes and audio system. It would, however, be impossible for us to advise you on the exact settings to use without listening to your system in your room ourselves. Therefore, we would strongly recommend that you test and run in the Ti48 on a single set of output settings and then use the various options to tune the sound quality once you are familiar with the system. The settings given in the example in Section 8.3 would be a good starting point.

8.2 To access the Output Settings

	Remote Control Key(s)	Front Panel Screen
Open mode MENU		<div style="border: 1px solid black; padding: 5px;"> 01 Transport >CD Player HD Player HD Editor </div>
Move cursor down to “Output Settings” Confirm selection	 	<div style="border: 1px solid black; padding: 5px;"> 01 Transport > Output Settings System Setup Shutdown </div>
The Output Settings screen will look like this :		<div style="border: 1px solid black; padding: 5px;"> Output settings >Up mode : None Up rate : 44100Hz Dither : None ■ </div>

8.3 Example : to select the following output settings –

Upmode : HQ1
 Uprate : 88200Hz
 Dither : None
 Wordlen : 24-bit
 Phase : Normal
 SigAttn : None
 Device : I2S

	Remote Control Key(s)	Front Panel Screen
<p>To select upsampling mode, move cursor to “Up mode”</p> <p>Use arrow keys or OK to scroll to – “Up mode : HQ1”</p>	    	<div> Output settings >Up mode : HQ1 Up rate : 44100Hz Dither : None </div>
<p>To select upsampling rate, move cursor to “Up rate”</p> <p>Use arrow keys or OK to scroll to – “Up rate : 88200Hz”</p>	    	<div> Output settings Up mode : HQ1 > Up rate : 88200Hz Dither : None </div>
<p>To select dither, move cursor to “Dither”</p> <p>No action required as default is – “Dither : None”</p>		
<p>To select upsampling wordlength, move cursor to “Wordlen”</p> <p>Use arrow keys or OK to scroll to – “Wordlen : 24-bit”</p>	    	<div> Output settings > Wordlen : 24-bit Phase : Normal Signal Attn : None </div>
<p>To select phase, move cursor to “Phase”</p> <p>No action required as default is – “Phase : Normal”</p>		
<p>To select signal attenuation, move cursor to “SigAttn”</p> <p>Use arrow keys or OK to scroll to – “SigAttn : None”</p>	    	<div> Output settings Wordlen : 24-bit Phase : Normal >Signal Attn : None </div>
<p>To select output connection, move cursor to “Device”</p> <p>Use arrow keys or OK to scroll to – “Device : I2S”</p>	    	<div> Output settings Phase : Normal Signal Attn : None > Device : I2S </div>

USER MANUAL

NOTE :

Please read the QUICKSTART section first as this will help you to familiarise yourself with the menu structure and how to move around and select the various options.



The following instructions are by necessity much more brief though where required, screen shots of the LCD are shown.

9. CD Player Mode

- 9.1 On start-up, the Ti48 enters the CD Player mode by default. To change to CD Player mode from another mode eg. from HD Player : press **MENU / OK**

In CD Player mode, you can select the following Options :

Option	Function
Grab Album	Archive a CD
Grab Trk(s) to HD	Archive selected tracks from a CD
Grab Trks ->Plylst	Store selected tracks in the buffer to make a compilation album (tracks are not permanently archived until the playlist is saved)
Output Settings	Change the upsampling rate, digital filter, dither, wordlength, phase, signal; attenuation and digital output type

	Remote Control Key(s)	Front Panel Screen
To access the Options	OPTS	<div> CD Player > Grab Album Grab Trk(s) to HD Grab Trks->Plylst ▀ </div>
Use the Up and Down arrow keys to move the selection cursor up and down	 	<div> CD Player Output Settings Display Settings > Back </div>

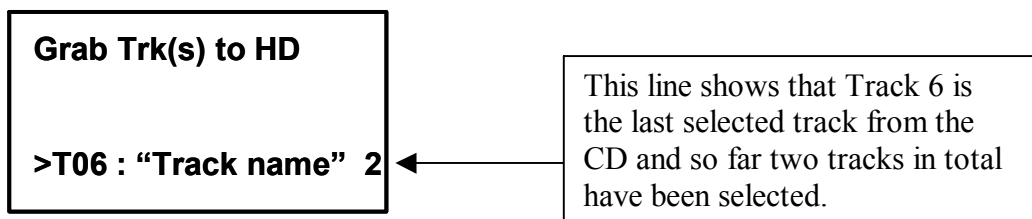
- 9.2 **Grab Album** : refer to section 6.2 in the Quick Start manual.

- 9.3 **Grab Trk(s) to HD** : press **OPTS** /  “> Grab trk(s) to HD” / **OK**

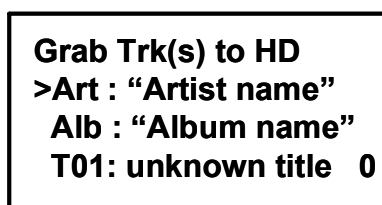
- 9.3.1 If the CD has been recognised by the EmDB database, the screen will show :

Grab Trk(s) to HD >T01 : “Track name” 0

- 9.3.2 Use the alphanumeric keys to select the track numbers of the tracks that you **DO NOT** want to archive.




- 9.3.3 When all the tracks that you do not want to be archived have been selected, press : **OK**.
- 9.3.4 If the CD has NOT been found in the EmDB database, the screen will show :

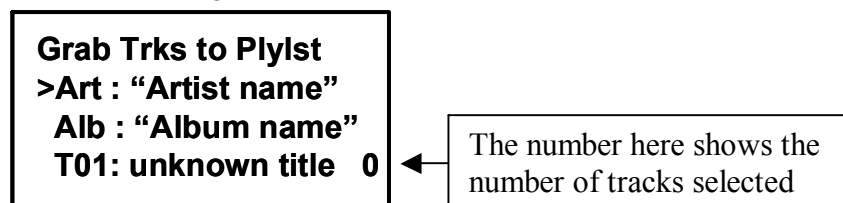


Follow the instructions in Section 6.2 of the Quickstart Manual to enter the name of the Artist/Group and the name of CD/Album. Select the tracks for not archiving in the same way above.

- 9.4 The Grab Tracks to Playlist function allows the archiving of selected tracks from a CD and the creation of compilation albums from several CDs . Because this function works by storing the selected tracks from each loaded CD in the Current Playlist buffer, you must first delete the Current Playlist. To do this, select HD Player Mode (see Section 10.1), then select Clear Playlist (see Section 10.6). If you wish to keep the Current Playlist, you must save it first (see Section 10.7).

To archive selected tracks from a CD, select CD Player mode, load the CD. Then :

Grab Track(s) : press **OPTS** /  “> Grab Track(s)” / **OK**



- 9.4.1 Use the alphanumeric keys to select the track numbers of the tracks that you wish to archive. Press : **OK** on completion.

9.4.2 If the CD has NOT been found in the EmDB database, you will have to manually enter the artist/group and CD/album names (see Section 6.2). Track titles will also not be available but once the tracks have been archived, you can manually enter track titles and other information; see Section 11.1 in User Manual.

9.4.3 To save the archived tracks :


Save Playlist: press **OPTS** /  “> **Save Playlist**” / **OK**

See 10.7 for more details on **Save Playlist**. Because this Playlist was created from archived tracks and not from a previously archived CD, you will need to enter a name for the Playlist in the PLY field eg. “Jazz1”. This references the archived tracks to this Playlist.

9.4.4 To add more tracks from another CD to the same Playlist eg. “Jazz1”, ensure that “Jazz1” is the Current Playlist loaded in HD Player. Return to CD Player mode, load the new CD and follow Sections 9.4 to 9.4.3. You will not have to re-enter the Playlist name (see Section 9.4.3) if you wish to keep it as “Jazz1”.






9.5 **Output Settings** : See Section 12 in User Manual

10. HD Player Mode

10.1 To change to HD Player mode from another mode eg. CD Player, press :
MENU /  / **OK**

In HD Player mode, you can select the following Options :

Option	Function
Change CD/Playlist	Select the archived CD/Album or saved Playlist to be played
Add to Playlist	Add another archived CD/Album or saved Playlist to the current selected Playlist, which will be played back sequentially after the current Playlist
Add Track(s)	Add tracks from other archived CD/Album to the current Playlist, which will be played back sequentially after the current Playlist
Edit Playlist	De-select tracks from the current Playlist
Clear Playlist	De-select the current Playlist (does NOT delete tracks or albums)
Save Playlist	Save the current Playlist for future playback
Output Settings	Change output settings





	Remote Control Key(s)	Front Panel Screen
To access the Options		<div> HD Player > Change CD/Playlist Add to Playlist Add Track(s) </div>
Use the Up and Down arrow keys to move the selection cursor up and down	 	<div> HD Player Edit Playlist Clear Playlist > Save Playlist </div>
Use the Up and Down arrow keys to move the selection cursor up and down	 	<div> HD Player Save Playlist Output Settings > Back </div>


10.2 **Change CD/Playlist** : refer to section 7.2 in Quick Start manual.

10.3 **Add to Playlist** : press: OPTS  “> Add to Playlist” / OK

HD – Add to Playlist
> Art : “Artist name”
Alb : “Album name”
Ply : album

10.3.1 To find the artist /group name (“**Art :**”) for the album or saved playlist to add to the current playlist , use :

- alphanumeric keys for the first letter of the name
-   to scroll alphabetically through all the names
-   to jump forwards or backwards by 5 names

10.3.2 When the artist/group name has been found, next find the CD/album name (“**Alb :**”) for that artist/group. Use the  key to move the cursor down to the “**Alb**” line. Follow the instructions above to find the name of the CD/album.



10.3.3 When the “**Art :**” and “**Alb :**” information has been found, press : **OK** . The selected CD/album will be added to the end of the current playlist.



10.4 **Add Tracks :** press : **OPTS** /  “> **Add Track(s)**” / **OK**


HD – Add Track(s)
> Art : “Artist name”
Alb : “Album name”
T01 : Track 01 0

10.4.1 To find the artist /group name (“**Art :**”) for the album or saved playlist to add to the current playlist , use :

a) alphanumeric keys for the first letter of the name

b)   to scroll alphabetically through all the names



c)   to jump forwards or backwards by 5 names

10.4.2 When the artist/group name has been found, next find the CD/album name (“**Alb :**”) for that artist/group. Use the  key to move the cursor down to the “**Alb**” line. Follow the instructions above to find the name of the CD/album.


10.4.3 When the CD/album name has been found, next select the track numbers (“**T01**”) to be added to the current Playlist. Use the alphanumeric keys to enter the track numbers.

10.4.4 Once the “**Art :**”, “**Alb :**” and “**T01**” information has been found, press : **OK**
 The selected tracks will be added to the end of the current playlist.

10.5 **Edit Playlist:** press : **OPTS** /  “> **Edit Playlist**” / **OK**

Use   to scroll through
 the list of tracks


> “track 1 name”
“track 2 name”
“track 3 name”
unknown title

- 10.5.1 To de-select a track, with the cursor against that track title, press : 

NOTE : tracks are not deleted from the hard-drive by this function

- 10.5.2 To return to playback mode, press : **OK**

- 10.6 **Clear Playlist:** press **OPTS** /  “> Clear Playlist” / **OK**

Use the  key to
select “Yes” and press : **OK**













**Clear the
playlist ?
> No
Yes**

Note : Archived CDs/tracks and Saved Playlists are not deleted from the hard-drive by this function. However, Current Playlists that have not been saved will be lost.

- 10.7 **Save Playlist:** press **OPTS** /  “> Save Playlist” / **OK**

**HD – Save Playlist
> Art : “Artist name”
Alb : “Album name”
Ply : album**

- 10.7.1 The “**Art :**” and “**Alb :**” fields will display the artist/group and CD/album names of the current Playlist. If you had created the Playlist by selecting a CD/album from the archives and then adding other CD/albums and/or tracks to the current Playlist, these names will be those of the first selected CD/album in the Playlist.
- 10.7.2 If you wish to save the current Playlist under these names, press : **OK** .
- 10.7.3 If you would prefer to save the current Playlist under a new set of names, you must enter the names manually. This would be useful to differentiate between the album of an archived CD and a Playlist containing tracks from the same artist/album. To give the Playlist a new set of names :


To enter new artist/group name, find the “ new artist ” field	 	<div> HD – Save Playlist > Art : (new artist) HD Alb : Ply : </div>
Press OK to confirm		<div> Add New Artist ART : </div>
Use alphanumeric keys to enter new artist/group name. Press OK to confirm	  etc 	<div> HD – Save Playlist Art : Blues guitarists >Alb : Ply : </div>
To enter new album name, find “ new album ” field	 	<div> HD – Save Playlist Art : Blues guitarists >Alb : (new album) Ply : </div>
Press OK to confirm		<div> Add New Alb ALB : </div>
Use alphanumeric keys to enter new album name. Press OK to confirm	  etc 	<div> HD – Save Playlist Art : Blues guitarists Alb : Late nighters > Ply : </div>

10.7.4 Repeat above process for “**Ply:**”

10.8 **Output Settings** : See Section 12 in User Manual




11. HD Editor Mode

11.1 To change to HD Editor mode from another mode eg. CD Player, press :

MENU /  x 2 / **OK**

In HD Editor mode, you can select the following Options :

Option	Function
Change track info	Allows the information stored inside a track file to be changed including artist/group, album and track names.
Delete track(s)	Permanently delete one or more tracks from an archived CD/album
Rename album	Rename an archived CD/album
Delete album	Permanently delete an archived CD/album
Rename artist	Change the name of an artist/group in the archived files
Delete Artist	Permanently delete an artist/group name from the archived files (Note : all audio tracks /CDs/albums/Playlists stored under this artist/group name will also be deleted permanently).












	Remote Control Key(s)	Front Panel Screen
To access the Options		<div style="border: 1px solid black; padding: 5px;"> HD Editor >Change track info Delete track(s) Rename album </div>
Use the Up and Down arrow keys to move the selection cursor up and down	 	<div style="border: 1px solid black; padding: 5px;"> HD Editor Delete album Rename artist >Delete artist </div>

11.2 **Change track info:** press : **OPTS** / **OK**

Select the info line that you wish to change, press : **OK**











Type in the new information, press : **OK**

11.3 Delete track(s) : press **OPTS** / "> Delete track(s)" / **OK**








Find the artist/group name	<p>alphanumeric keys for the first letter of the name</p> <p>  to alphabetically scroll through all the names</p> <p>  to jump forwards or backwards by 5 names</p>	<div style="border: 1px solid black; padding: 5px;"> <p>HD – Delete Track(s) > Art : “Artist name” Alb : “Album name” T01 : Track 01 0</p> </div>
Find the CD/album name	<p>alphanumeric keys for the first letter of the name</p> <p>  to alphabetically scroll through all the names</p> <p>  to jump forwards or backwards by 5 names</p>	<div style="border: 1px solid black; padding: 5px;"> <p>HD – Delete Track(s) Art : “Artist name” > Alb : “Album name” T01 : Track 01 0</p> </div>
<p>Select the track(s) to be deleted using alphanumeric keys</p> <p>Press OK to confirm</p>	<p>   etc </p> <p></p>	<div style="border: 1px solid black; padding: 5px;"> <p>HD – Delete Track(s) > Art : “Artist name” Alb : “Album name” T01 : Track 05 2</p> </div>

NOTE : Tracks will be permanently deleted from the hard-drive by this function

11.4 **Rename album** : press **OPTS** / “> Delete track(s)” / **OK**

<p>Find the artist/group name of the CD/album to be changed</p> <p>Find the CD/album to be changed</p> <p>Press OK to confirm selection</p>	<p>alphanumeric keys for the first letter of the name</p> <p>  to alphabetically scroll through all the names</p> <p>  to jump forwards or backwards by 5 names</p> <p></p>	<div> <p>Rename Album</p> <p>> Art : Various</p> <p>Alb : Old1</p> </div> <div> <p>Enter Album Title</p> <p>Art : Various</p> <p>ALB :</p> </div>
<p>Use alphanumeric keys to enter new album name e.g. “New1”, and press OK</p> <p>Move cursor down to “Yes”</p> <p>Press OK to confirm</p>	<p>  etc</p> <p></p> <p></p> <p></p>	<div> <p>Change alb name to New1 ?</p> <p>> No</p> <p>Yes</p> </div>


11.6 Delete artist : press OPTS / “> Delete artist” / OK

Find the name of artist/group to be deleted e.g. “Various”	<p>alphanumeric keys for the first letter of the name</p> <p>  to alphabetically scroll through all the names</p> <p>  to jump forwards or backwards by 5 names</p>	<div data-bbox="941 385 1321 586" style="border: 1px solid black; padding: 5px;"> <p>Delete Artist > Art : Various</p> </div>
Press OK to confirm selection		
Move cursor down to “Yes”		<div data-bbox="941 1120 1321 1321" style="border: 1px solid black; padding: 5px;"> <p>Delete Artist Various ? > No Yes</p> </div>
Press OK to confirm selection		

NOTE : All CDs and/or tracks archived under this artist name will be deleted permanently from the hard-drive by this function.



12. Output Settings

12.1 To change any of the output settings

To change to Output Settings mode from another mode eg. CD Player, press :
MENU /  x 3 / **OK**

In Output Settings mode, you can select the following Options :

Option	Function
Upmode	Upsampling modes. These are the 5 digital filter options available; from no filter to the conventional “brickwall”.
Uprate	Upsampling rate. This is frequency at which upsampling will be performed; from no upsampling at 44100Hz to 196.4kHz.
Dither	Low level digital noise added to help linearise the signal and increase resolution.
Wordlen	Wordlength of the upsampled digital data; can be increased from 16 bits to 24 bits
Phase	Absolute phase of the signal.
Sig Attn	Signal attenuation. Can be 3dB or none.
Device	The digital output connection to be used; either I2S or S/PDIF.

	Remote Control Key(s)	Front Panel Screen
<p>With the cursor against the output setting you wish to change, scroll through the options available</p> <p>Do NOT press OK to confirm. The option shown on the screen is the selected one : e.g. the digital filter is now set to the “Purist” filter</p>	 	<div> <p>Output settings >Up mode : None Up rate : 44100Hz Dither : None</p> </div> <div> <p>Output settings >Up mode : Purist Up rate : 44100Hz Dither : None</p> </div>

12.2 Details of the Digital Processing Options

12.2.1 Upmode

There are five digital filters available in the Ti48. They are listed in order of increasing steepness of the filter and complexity .

Filter	Comments
None	This setting offers the best transient performance, but the highest level of out of band noise (some equipment does not handle this well, resulting in lowered performance). For oversampling modes (88.2, 176.4K), this setting does not employ a filter, but repeats the samples instead to make up the appropriate number. So 88.2, the processor outputs each CD sample twice, while at 176.4K, every four times. For upsampling modes (48, 96, 192K), it is not feasible to output without any filtering, so weighted line interpolation is used. This should not be considered a filter suitable for critical listening, and is included to keep the audio going whilst navigating through the different options.
Purist	This is a special setting for oversampling modes, which uses half-length versions of the HQ1 filters, giving a non-linear phase response but also no "pre-ringing" of the impulse. Upsampling modes are as per HQ1.
HQ1	These filters offer gentle low pass filtering, to reduce filter ringing just outside what is considered to be the "audio band".
HQ2	These filters are steeper than HQ1, but gentler than HQ3. That's it.
HQ3	These are the steepest filters available, approximating what is commonly termed a "brick wall".

12.2.2 Uprate

There are five sampling rates at which upsampling can be performed as well as the "no upsampling" option of 44100Hz.

Sample Rate	Comments
44100Hz (44.1kHz)	CD audio (Red Book) standard ie. no upsampling
48000Hz (48kHz)	
88200Hz (88.2kHz)	
96000Hz (96kHz)	
176kI2S (176.4 kHz)	only available in I ² S mode (see Device)
192kI2S (192kHz)	only available in I ² S mode (see Device)

12.2.3 Dither

Dither should be applied when outputting to a D/A converter which is capable of accepting more than 16-bit wordlength. Do note that many older DACs which use greater than 16-bit chips are limited to 16-bit input by the S/PDIF receiver configuration. Consult your manual for the DAC to see if it can receive data with wordlength greater than 16-bit.

There are four dither options available :

Dither	Comments
None	No dither added
TPDF	Triangular PDF dither added
Nshape	This is a special kind of high-passed dither which introduces ultrasonic noise right at the Nyquist limit of the sampling rate in use. This can help to linearise some D/A converters.
Nyquist	Second order noise shaping is employed to allow more resolution at the low frequencies, as the expense of more noise at the higher ones. A useful choice for the sampling rates of 88.2K onwards

12.2.4 Wordlength

The wordlength of the upsampled data can be increased to improve the accuracy of the data processing. This protects against data being lost during the mathematical operations required for the interpolation and sample rate conversion. The wordlength options available are :

16 bit / 18 bits / 20 bits / 24 bits

12.2.5 Phase

Normal / Inverted

12.2.6 Sig Attn

Attenuation : **None**

This passes the signal through from the input without applying any attenuation.

Attenuation : **3dB**

This attenuates the incoming signal by 3dB at the processing stage, to allow headroom for upsampling. It can also improve the linearity of D/As when playing very compressed/loud recordings which regularly come close to or hit 0dBFS.

12.2.7 Device

I2S : custom I2S digital audio connection to be used between Zero One transports and DACs only. This is the minimal jitter connection. It is capable of transmitting up to 24-bit/192kHz upsampled data from the Ti48 to a matching Zero One DAC.

S/PDIF : standard digital audio interface utilising either RCA or TOSLink connectors. It can transmit up to 24-bit/96kHz upsampled data to any outboard DAC capable of receiving and processing 24-bit/96kHz data.

13. System Setup

13.1 To change to System Setup mode from another mode eg. CD Player, press :

MENU /  x4 / **OK**

In System Setup mode, you can select the following Options :

Option	Function
Autoplay	Enables the CD Player mode to automatically play a CD that has been loaded in the tray when the tray is manually closed
EmDB off	Turns off the FreeDB compressed CD recognition
Version Information	Information about the version of the software currently in the system
Update CDROM	Updates software via CDROM
Forced Update	Enables return to a previous version of the software via CDROM
Back	Returns to previous screen

13.2 **Autoplay** : press    to toggle between “Yes” and “No”

When “Yes” is selected, the Ti48 will automatically play a CD, in CD Player mode, when the CD tray is manually closed. To close the CD tray manually, push horizontally on the front (metal) plate of the CD tray.

- 13.3 **EmDB off** : press    to toggle between “Yes” and “No”

When “Yes” is selected, the EmDB CD recognition system will not function. This can be useful should you have a CD that you wish to archive but is being incorrectly recognised by the FreeDB database (EmDB is a compressed version of FreeDB). Although it is rare, this may occur with pressings of CDs made in different countries from the original CDs used to enter the FreeDB data. In such cases, you may wish to turn off the EmDB and enter the CD artist and album names manually, using the remote control keys.

13.4 **Version Information**

Provides information on the version of the software in the Ti48.

13.5 **Update CDROM Normal**

The software in the Ti48 can be updated by a CDROM.

To update the software :

open the CD tray and load CDROM (**DO NOT CLOSE CD TRAY**)

Move cursor down to “**Update CDROM**”, press : **OK**

The CD tray will close automatically and update will begin. The update process will be completed when the screen returns to the System Setup main menu.

13.6 **Forced Update**

This is an option given to users to enable returning the Ti48 software to an older version. Follow the instructions as for Section 13.4 but this time loading the previous update software CDROM you have.

14. Software Updates

- 14.1 Transport software : from time to time, Zero One may issue updates to the software, either to improve the user interface or to add new features. These will be made available on CDROM which will automatically update the Ti48 when loaded.
- 14.2 EmDB : an update containing the latest information from FreeDB will be issued by Zero One on a quarterly basis.