



Talk Electronics
Thunder 2.2 CD Player
User Manual

Thunder User Manual

INTRODUCTION

Thank you for choosing a Talk Electronics Thunder CD player. We are confident that it will provide you with many years of musical enjoyment and reliable service. However, please take the time to read this guide thoroughly before using the amplifier. It explains how to install and connect it, and suggests how to ensure that you always enjoy its optimum performance.

UNPACKING LIST

- CD player
- Remote control handset
- AC power cord
- Instruction manual

NOTE: We recommend that the supplied AC power cord is replaced with a high quality Merlin Cables power cord for best results. Please be aware that this unit is not supplied with interconnects and we recommend the use of the Merlin series of interconnect cables.

INSTALLATION INSTRUCTIONS

HOW TO SITE AND CONNECT YOUR THUNDER CD PLAYER FOR BEST PERFORMANCE AND SAFE OPERATION

Please unpack your CD player carefully and position it on a stable, level surface close to a mains socket. Before attempting to connect it into your system please read this manual carefully.

The Thunder will perform well placed on a coffee table or bookshelf but if you wish to achieve the best performance we suggest you place it on a specialist hi-fi support. There are many suitable designs available, which your dealer will be happy to advise you about.

Position the CD player so that it will not be subjected to high ambient temperatures: avoid sites where it will be in direct sunlight or close to a central heating radiator. For your own safety – and your CD player's

well-being – do not allow it to come into contact with water. Keep it away from potted plants to avoid those all-too-common watering accidents! To clean the amplifier's case disconnect it from the wall socket and wipe it with a barely damp, lint-free cloth or chamois leather. If you suspect that water has entered the casework, return the amplifier to your dealer so that he can examine it.

Once you have installed your CD player **please retain all packaging** including the polythene bag which is designed to protect the finish of the unit whilst in transit. If you decide to upgrade or add a *Whirlwind* power supply, the packaging will be required to protect the Thunder and ensure it arrives undamaged at the factory or your distributor.

SAFETY

The Talk range of CD players contains Class 1 laser optics. You must never remove the lid from a player and look into the laser while it is operating: this could damage your eyes.


ELECTRICAL CONNECTIONS

The Thunder comes with a ready assembled mains lead and we suggest that you use this to connect it to the mains supply. We strongly recommend that you connect the lead directly to a wall socket and do not use extension blocks, which degrade sound quality. For the same reason we also advise against "line filters" and "mains conditioners". If your mains supply is noisy or you have household appliances that generate clicks and pops that can be heard through your hi-fi system, have an electrician correct the problem at its source. We do however recommend the use of 'Merlin Cables' power chords which do not interfere with the current flow and offer a significant performance improvement

Should you need to replace the fuse in the mains plug, please fit only the correct replacement types. This is a standard 5A.

If, for any reason, you wish to replace the plug or cable, please note that the lead must be connected as follows.

NOTE: These instructions apply in the United Kingdom only – consult your dealer about wiring conventions in other countries.

Green and yellow wire connects to EARTH (E or symbol )

Blue wire connects to NEUTRAL (N)

Brown wire connects to LIVE (L)

Please ensure that the replacement lead contains a 5A fuse.

OPTIONAL DC POWER CONNECTIONS

If you have opted for one of our external Whirlwind DC power supplies this should be connected using only the cables supplied with the Whirlwind. We strongly recommend that you do not replace or attempt to modify these cables. Doing so can adversely affect the CD player's performance and is likely to cause damage.

You will also need to re-configure your player for external DC operation using the internal jumpers as described below.

Before attempting to re-configure your player, disconnect the mains lead at the wall socket. Having made your player safe, remove the cover by unscrewing the screws located on the top and those on the underside using a combination of a T10 security torx driver and a No.1 posi-drive screwdriver lift the cover and locate the blue jumpers in the back right corner using Diagram 3 (see page 9) and position them for the desired configuration. Replace the cover, connect your Whirlwind power supply and re-connect the mains lead to the wall socket.

SWITCHING YOUR CD PLAYER ON AND OFF

If you are using a Whirlwind external DC supply to power the analogue parts of your CD player we suggest that this, once connected, is left switched on all the time. To avoid "switch-on thumps" being transmitted to your loudspeakers when you switch on your CD player, we recommend that you always switch on – or cancel mute on – your amplifier last. Start by powering source components, such as your CD player, then power the pre-amplifier. Then switch on the power amplifier. When you've finished listening, mute or turn off the power amplifier and then mute your pre-amplifier. Finally, turn off your CD player and other source components. You may, if you wish, leave your CD player powered up at all times: this will enable it to deliver optimum performance as soon as you begin listening, however we suggest that you switch off the display when not required. This requires that a disc is present in the player at all times.

The power switch mounted on the Thunder's rear connects and disconnects the mains supply. When mains is connected, the display on the fascia will illuminate. If you plan to be away from home for long periods – when, for example, you are on holiday – you can use this switch to power down the CD player completely. For absolute safety, disconnect the mains lead from the wall socket. We advise that you do this during thunderstorms to avoid damage from power line surges.

REAR PANEL

Refer to Diagram on Page 11

MAINS CONNECTIONS

Next to the mains switch, on the rear panel, is an IEC socket into which the supplied mains lead fits. The fuse in the UK mains plug is a 5A standard type. Again, if you need to replace it use an identical type rated at 5A. If the fuses keep blowing return the CD player to your dealer.

OUTPUT CONNECTIONS

The analogue output sockets on the CD player are found on the rear panel. There are both balanced and unbalanced connections available and we strongly advise you to use the balanced where possible. Connect these to your amplifier or pre-amplifier's CD or Auxiliary input using high quality interconnect cables (we strongly recommend Merlin cables for optimum performance). On all players, the socket marked in red is the right channel, and the white socket is the left channel.

There are both optical and coaxial digital outputs as standard on all our players. Our research shows that the levels of signal jitter caused by separating the player's transport mechanism and DAC introduce an unacceptable degradation in sound quality, counteracting the benefits accrued through using our high quality, ultra-low jitter, 24-bit DAC. If you wish to make digital recordings you will need to **switch on** the digital output provided using the **yellow** internal jumper, see Diagram 1 (see page 7). However, we caution you that this addition will have a slight detrimental effect upon the player's performance.

Before attempting to re-configure your player, disconnect the mains lead at the wall socket. Having made your player safe, remove the cover by unscrewing the screws located on the top and those on the underside using a combination of a T10 security torx driver and a No.1 posi-drive screwdriver lift the cover and locate the yellow jumper using Diagram 1 (page 7) and position it for the desired configuration. Replace the cover and re-connect the mains lead to the wall socket. The Digital Output should now work accordingly.

VARIABLE OUTPUT VERSION.

If your player was specified as a variable type then you will find a label "VAR", next to the serial no. There is no readout or display of the volume however it will remember where you last left it, even if you power the player off. So in answer to the question; How do I know how loud it is? It is where you last left it! The mute function on the handset will also mute the players output completely, push the button for a second time and output will be restored. There is enough gain to drive any power amplifier into clipping however the factory default setting is quite low, as we do not know what amp and speakers you may have and we do not want you to leap out of your skin when you first play a disk. The volume control operates in the analogue domain so you are not reducing the bit count or resolution, it is a micro processor controlled resistor ladder and has only a very subtle effect on sound quality like any volume control.

OPERATING YOUR CD PLAYER

You can control the major functions of your CD player from either the remote control handset or the buttons on the player's fascia. If you simply wish to play a disc you do not need the remote control. However, do not lose the handset because it is required when you wish to program the player or use features such as *FF* or *FR*.

PLAYER CONTROLS

OPEN: Push once to close the player's drawer after inserting a disc. Do not push the drawer closed with your hand as this can damage the drawer mechanism.

PLAY/PAUSE: Push once to start the disc playing. If the player's drawer is open, pushing play will cause it to close and commence playing automatically. Pressing for a second time whilst playing a disc will pause the disc.

REPEAT: Push once to repeat the whole disc. Push twice to repeat the track currently playing. Pressing the button a third time returns normal operation.

STOP: Push once to stop the player operating.

PREVIOUS: Push during Play mode to play the previous track. Pushing more than once will cause the player to go back an equivalent number of tracks.

NEXT: Push during Play mode to play the next track. Pushing more than once will cause the player to advance an equivalent number of tracks.

TIME: Push once during Play mode to display the time remaining on the current track. Push again to display the time remaining on the disc. Push while the player is in Stop mode to display the total number of tracks and playing time of the disc.

Note: if the disc contains more than 69 tracks the display will show " _ _ . _ _ " instead of the remaining time. It will show the same if the remaining time exceeds 100 minutes during PROGRAM PLAY mode.

DISPLAY: Push once to turn off the display. Push again to return the display to full brightness.

Note: When the display is switched off, pushing any control on the player or remote handset, or changing the disc, will switch on the display for about 3 seconds. Please note that this function only works if a disc is present in the player and playing.

REMOTE CONTROL FUNCTIONS

As well as duplicating the major controls found on the player, the remote handset provides the following additional features.

PROGRAM: push to construct a program containing up to twenty-four selected tracks. The player will play your selections in the order in which you enter them into the program.

1. Select a track number by pressing the PREVIOUS or NEXT key, or by using the numerical keys.
2. Press PROGRAM. "PROGRAM" appears on the display panel indicating *Program Play* mode. This is quite dull.
3. To add further tracks repeat steps 1 and 2.

Once you have entered all the desired tracks, you can play your programme by pressing the PLAY button

To erase a programmed track, press the CLEAR key. Each time you press CLEAR, the last selection in the program will be removed. Press STOP to stop the program playing, then press STOP again.

FAST FORWARD and **REWIND:** To move rapidly to a particular section of music you can use the FAST FORWARD or REWIND keys, depending, obviously, upon whether you wish to access a section not yet reached or one that you have passed. While the player is in Play mode you will hear music playing at high speed. To move quickly through the disc in silence, press PAUSE before pushing the FF or REW buttons.

NUMERIC KEYS: These are used for entering selections in *Program* mode or for starting Play mode from a particular track. For example, loading a disc and then pressing "7" will cause the player to start playing the disc beginning at track 7. To access tracks greater than 9, first press "0" followed by the track number required.

VOLUME: The volume buttons will operate the volume function on any remote control amplifier that accepts RC5 commands. They are provided solely for your convenience, as there are no volume control functions on the CD player

HIDDEN MODES

These are only accessible with the use of an RC5 handset with the appropriate keys (Not the supplied handset).

SHUFFLE: Press SHUFFLE followed by PLAY to listen to tracks in a random order. To cancel Shuffle mode, press SHUFFLE again.

INTRO: Press INTRO and the player will scan through the disc playing the first 10 seconds of each track. Press INTRO while in Play mode and the player will scan through the disc playing the first 20 seconds of each track. To cancel either Intro mode simply press PLAY.

TIMER MODE

Your player is equipped with a Timer Mode. This allows the player to automatically play a disc when powered on from the mains via the use of an external timer. It is switched off by default at the factory. To turn this on follow the instructions below using Diagram 2 (see page 8).

Before attempting to re-configure your player, disconnect the mains lead at the wall socket. Having made your player safe, remove the cover by unscrewing the screws located on the top and those on the underside using a combination of a T10 security torx driver and a No.1 posi-drive screwdriver lift the cover and locate the yellow jumper located in the bottom right corner of the main PCB using Diagram 2 (page 8). To set the Timer ON remove the yellow jumper or place it in such a way that it is held by only one pin. Replace the cover and re-connect the mains lead to the wall socket. The Timer Mode should now be operational via the use of an external mains power timer.

SPECIFICATIONS

Maximum Output Voltage	
Output Impedance	
Frequency Response	
Distortion 1kHz max output	
Signal - to - Noise Awtd	
Mains Voltage	
Dimensions	width
	height
	depth
Weight per unit	unpacked
	packed

THUNDER 2.2

2.6V* RMS
<100 ohms
5 – 20k ± 0.2dB
<=0.001%
-104dB
230V /115V/100V AC ± 10%
440mm
89mm
325mm
(allow at least 400mm for connections)
11.4kg
13.2kg

* Variable output version 6V RMS

Talk Electronics' policy of continued research and development means that the above specification may change without notice.

The Thunder has been manufactured to conform with the protection requirements of the EC Council directive 89/336/EEC relating to EMC by application of the following standards:

EN50081-1 1992 Emissions Standard

EN50082-1 1992 Immunity Standard

and also the requirements of the EC low voltage directive relating to electrical safety by application of the following standard BSEN60065: 1994 Safety standard

For the purposes of testing the Thunder was used with the mains cables and high quality interconnects supplied by Merlin Cables. Compliance with the above standards can only be made if the unit is installed as per this manual and using the correct cables.

*Guarantee: 3 Years return to dealer.

To help us provide you with the most efficient service please return your guarantee card promptly. Your CD player is guaranteed against manufacturing and component defects for a period of 3 years. The guarantee does not cover and damage caused by accident, misuse, neglect or through incorrect installation, adjustment or repair by unauthorised personnel or the cost of collecting the Thunder from you and returning it to the dealer. The above does not effect your statutory rights as a consumer.

E & OE. Due to our policy of continued development we reserve the right to change the specifications at any time.

*Upon return of Guarantee Card

GUARANTEE

To extend your guarantee from 1 year to 3 years FREE of charge please complete and return this form

TALK ELECTRONICS LTD.
UNIT 3 IMAGE HOUSE
326 MOLESEY ROAD
HERSHAM
SURREY KT12 3PD
ENGLAND

FOLD HERE

Model: **Thunder 2.2**

Purchase date _____

Price paid _____

Serial Number _____

Colour: Black Silver

Where did you purchase your Thunder 2.2?

How did you hear about Talk Electronics?

Existing customer

Family/Friend Dealer

Advertising Review Internet

Other _____

Please tell us about the rest of your system

Amplifier _____

Tuner _____

Speakers _____

Mains Cables _____

Interconnect Cables _____

Speaker Cables _____

Why did you choose the Thunder 2.2?

Are you interested in Home Cinema?

Yes No Undecided

Have you visited our website?

www.talkelectronics.com

Yes No Do not have connection

FOLD HERE

Customer Name _____

Address _____

Post Code _____

E-mail address _____

Data Protection Act

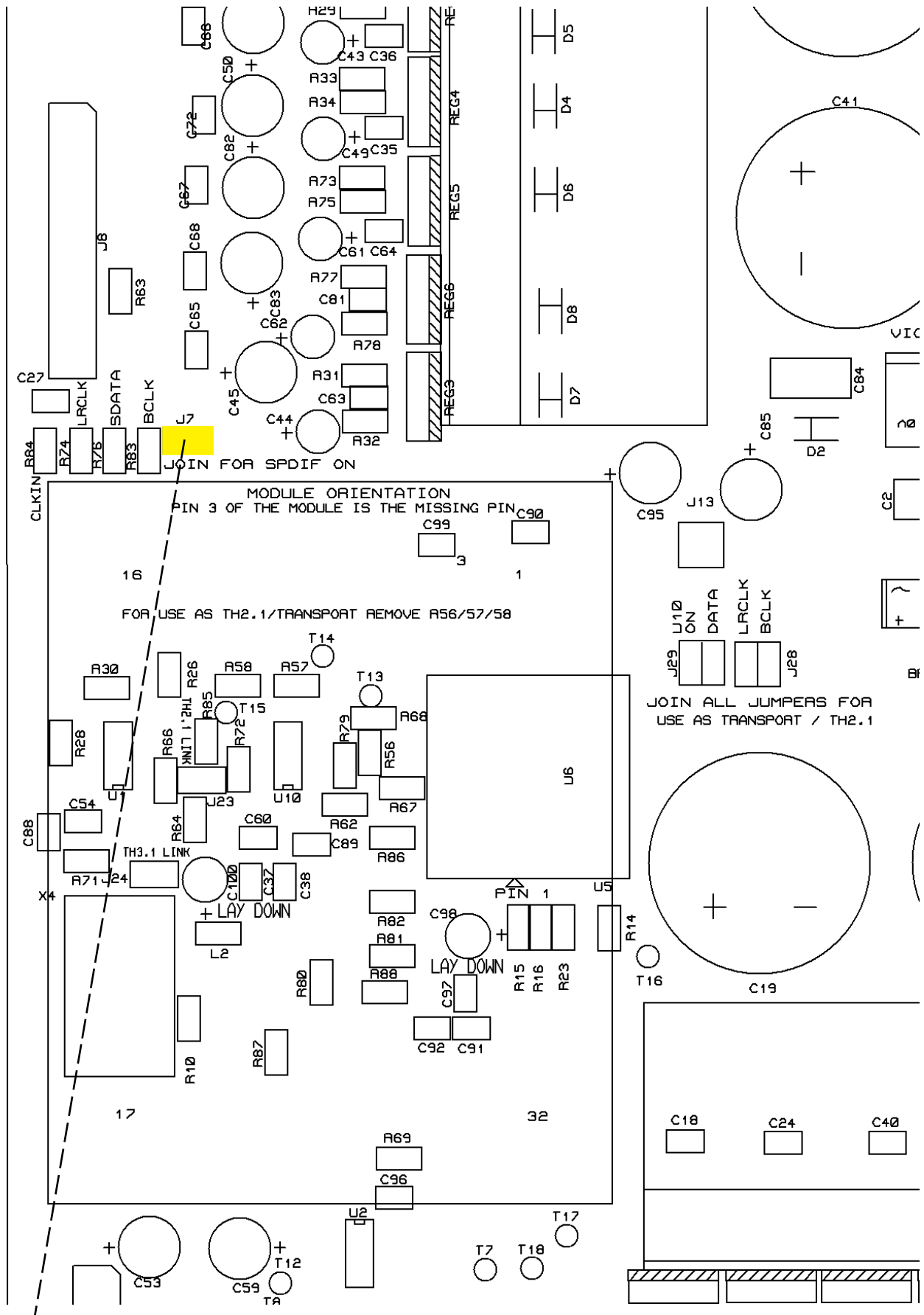
Your details will be held by Talk Electronics Ltd. for promotional and statistical purposes.

If you do not wish to receive marketing information please tick this box

Comments _____

DIAGRAM 1: SP DIF MODE (TO LOCATE THIS AREA PLEASE REFER TO MAIN LAYOUT DIAGRAM)

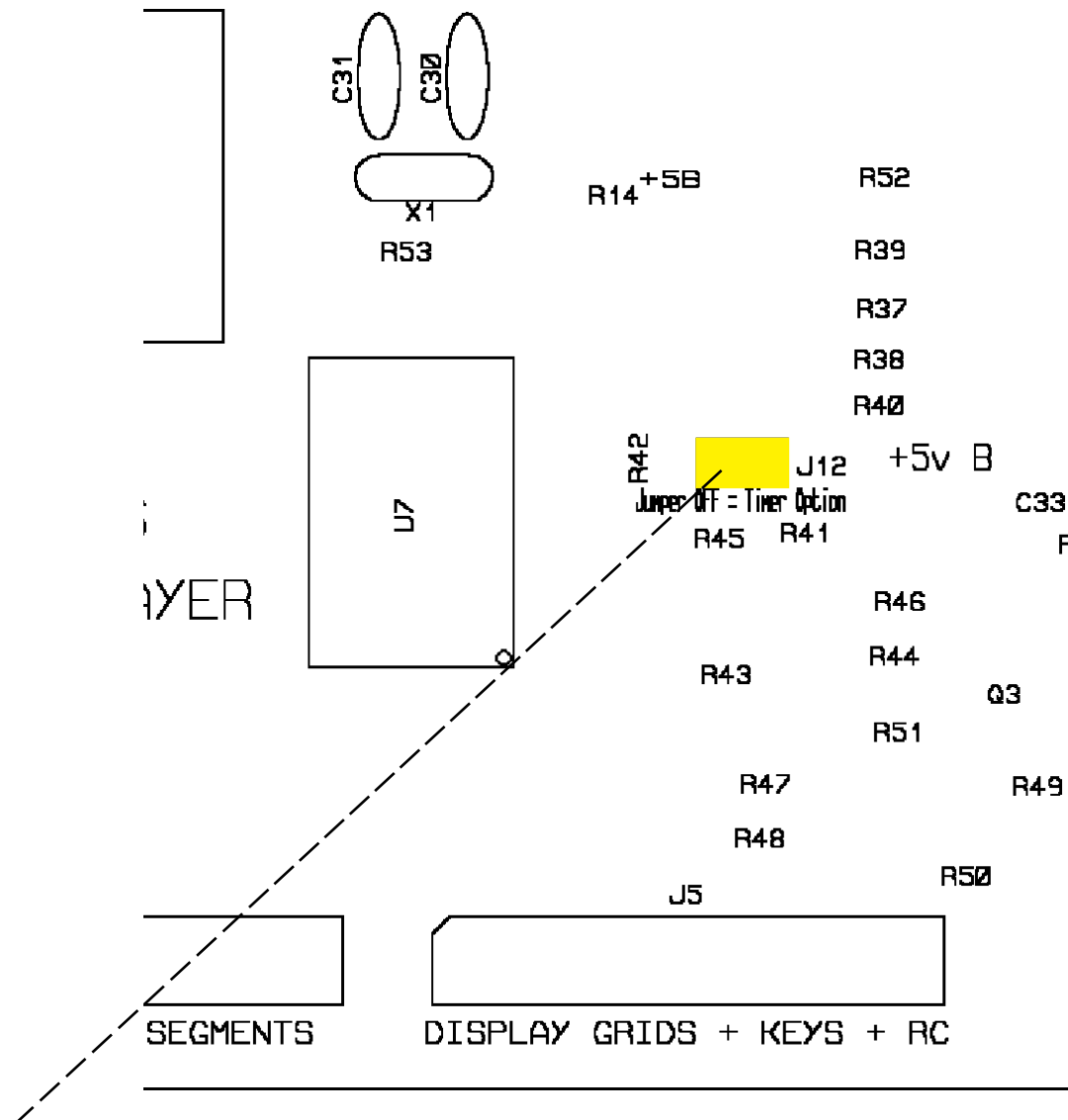
This is an enlarged version of the hatched area on the main layout diagram



Place yellow jumper across the pins to turn SP DIF Mode ON

DIAGRAM 2: TIMER MODE (TO LOCATE THIS AREA PLEASE REFER TO MAIN LAYOUT DIAGRAM)

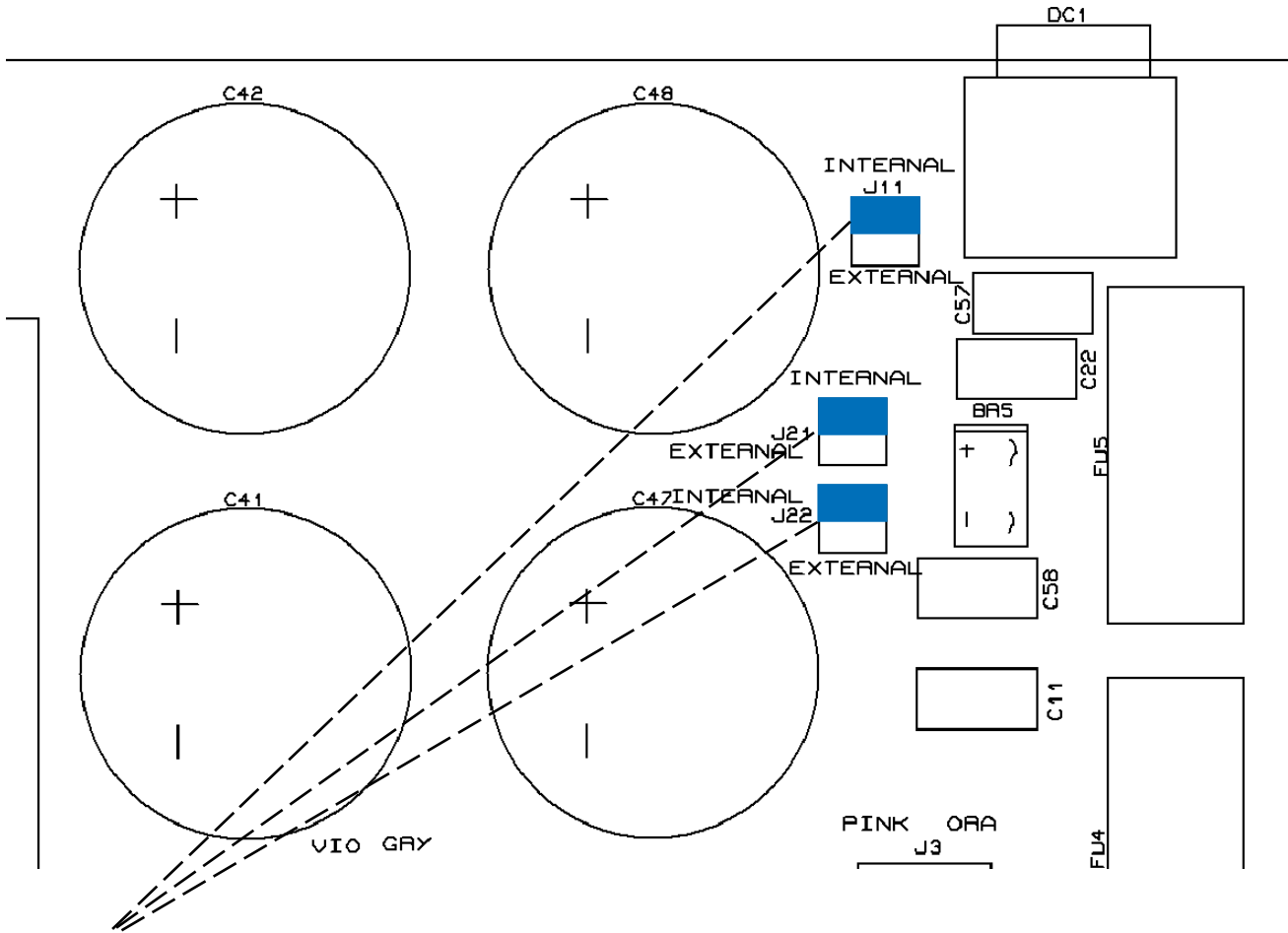
This is an enlarged version of the hatched area on the main layout diagram



Remove yellow jumper from the pins to turn Timer Mode ON

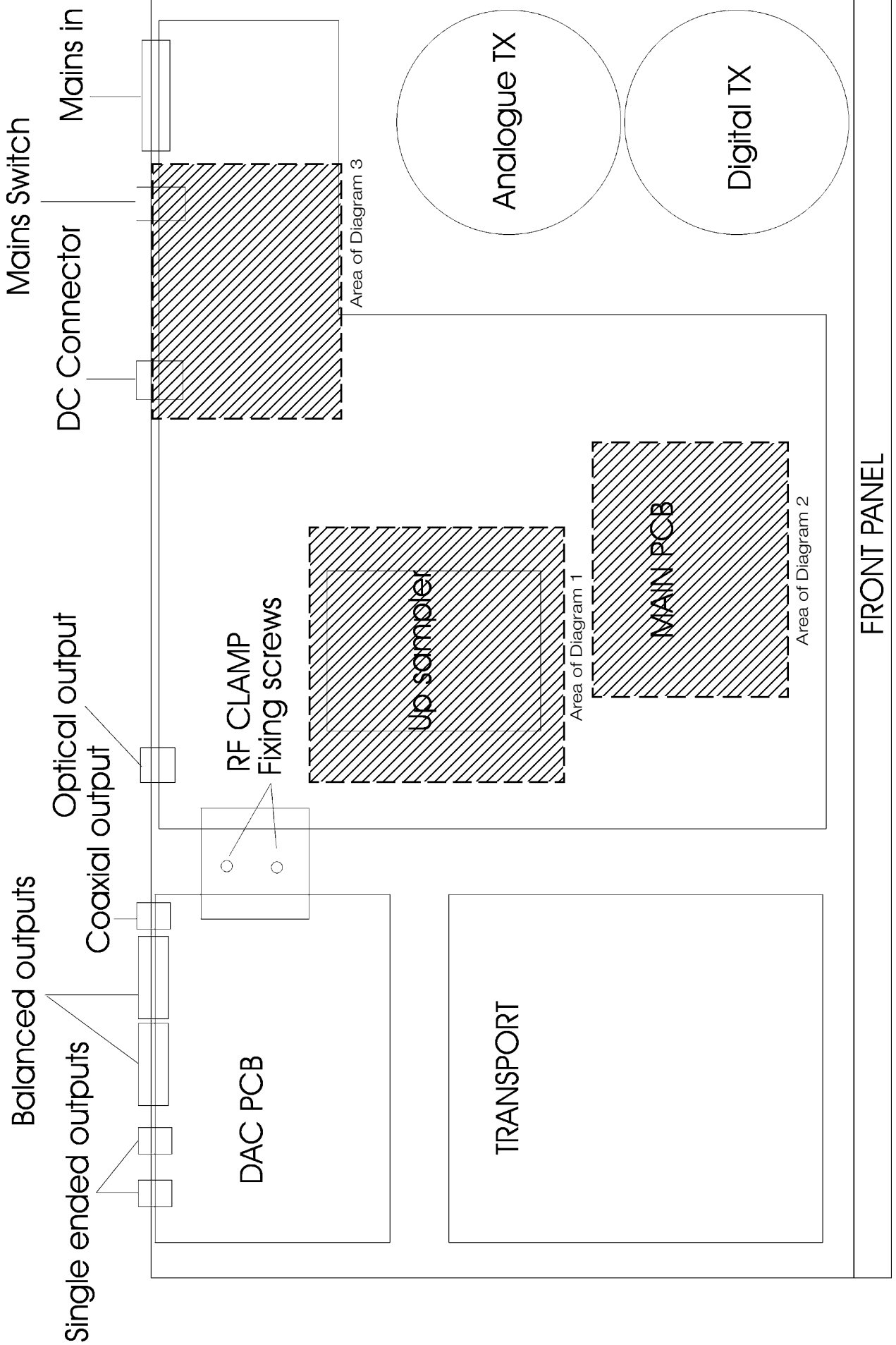
DIAGRAM 3: DC MODE (TO LOCATE THIS AREA PLEASE REFER TO MAIN LAYOUT DIAGRAM)

This is an enlarged version of the hatched area on the main layout diagram



Move blue jumpers to external position for use with Whirlwind 2.2 power supply

DIAGRAM 4: MAIN LOCATING DIAGRAM



REAR PANEL LAYOUT

