

TANNOY®

ellipse **IDP**[™]
TECHNOLOGY

Owners Manual



4	Important Safety Instructions
5	Quick Set-Up Guide
7	Introduction
8	Concept & Design Philosophy
9	Unpacking & Visual Checks
10	Preliminary Recommendation
10	Monitor Placement
10	Orientation
11	Master & Slave Concept
13	Rear Panel Description
14	Operational Overview
15	iDP™ Display & Setup Procedure
16	Set-Ups
25	Set-Up When The Monitors are connected
27	Parameter Description
28	Bass Management
29	Set-Up Menu
30	Ⓢ Parameters Available for Ellipse 8 iDP™ Ellipse 10 iDP™
30	Ⓢ Parameters Available for Ellipse TS212 iDP™ Subwoofer
31	Parameter Categories
32	iDP™ Remote
34	iDP SOFT™
43	Technical Specifications. Ellipse 8 iDP™
44	Technical Specifications. Ellipse 8 iDP™
45	Technical Specifications. Ellipse TS212 iDP™ Subwoofer & iDP™ Remote
46	Performance Data
47	Dimensions
	Appendix
50	iDP™ Display Messages
51	System Delays
51	X-Curves Explained
52	Preset List
53	iDP™ Cables
54	Declaration of Conformity
55	Warranty

IMPORTANT SAFETY INSTRUCTIONS



The lightning flash with an arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with a dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11 Only use attachments/accessories specified by the manufacturer.
- 12  Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Warning!

- ⊗ To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- ⊗ This apparatus must be earthed.
- ⊗ Use a three wire grounding type line cord like the one supplied with the product.
- ⊗ Be advised that different operating voltages require the use of different types of line cord and attachment plugs.
- ⊗ Check the voltage in your area and use the correct type. See table below:

Voltage	Line plug according to standard.
110-125V	UL817 and CSA C22.2 no 42.
220-230V	CEE 7 page VII, SR section 107-2-D1/IEC 83 page C4.
240V	BS 1363 of 1984. Specification for 13A fused plugs and switched and un-switched socket outlets.

Service

There are no user-serviceable parts inside. Qualified personnel must perform all service. Servicing is required when: -

- ⊗ The unit has been damaged in any way, such as when the power-supply cord or plug is damaged.
- ⊗ The unit has been exposed to rain or moisture, or liquid has been spilled into the unit.
- ⊗ Objects have fallen into the unit.
- ⊗ The unit does not work properly.
- ⊗ The unit has been dropped.

EMC

This equipment has been tested and found to comply with the limits for a Class B Digital device, pursuant to part 15 of the FCC rules.

These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on. The user is encouraged to try to correct the interference by one or more of the following measures:

- ⊗ Reorient or relocate the receiving antenna.
- ⊗ Increase the separation between the equipment and receiver.
- ⊗ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ⊗ Consult the dealer or an experienced radio/TV technician for help.

Caution:

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

For the customers in Canada:

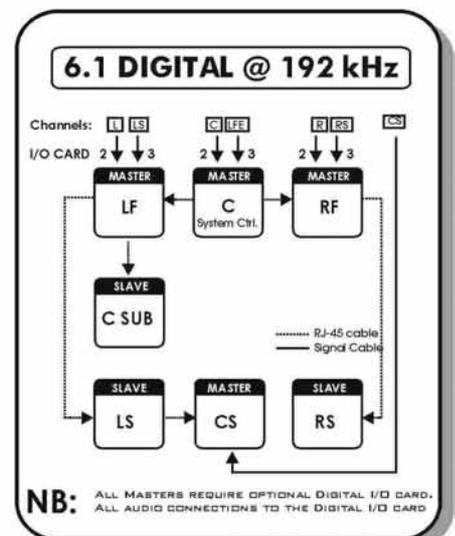
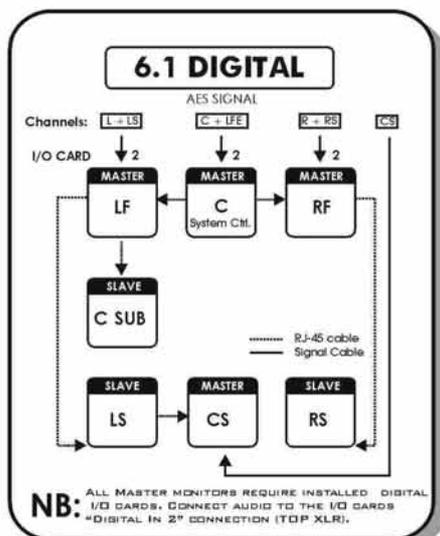
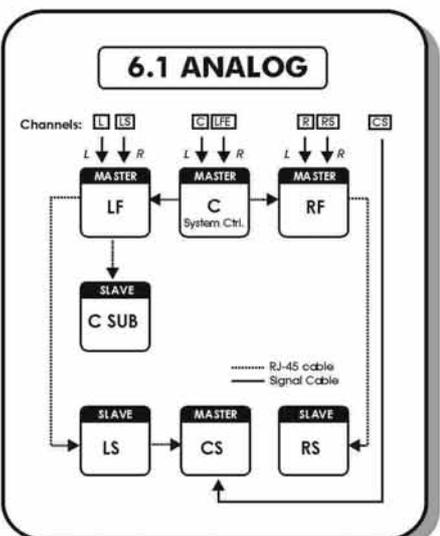
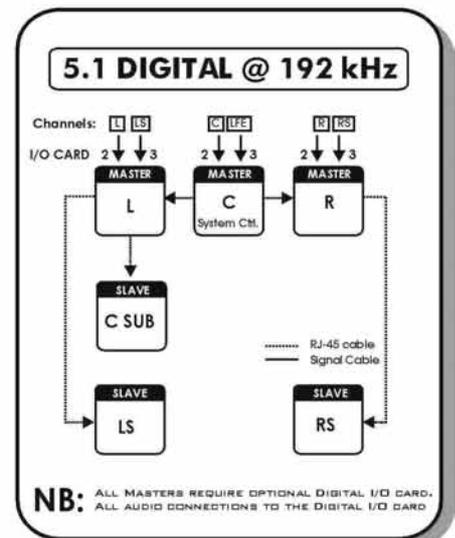
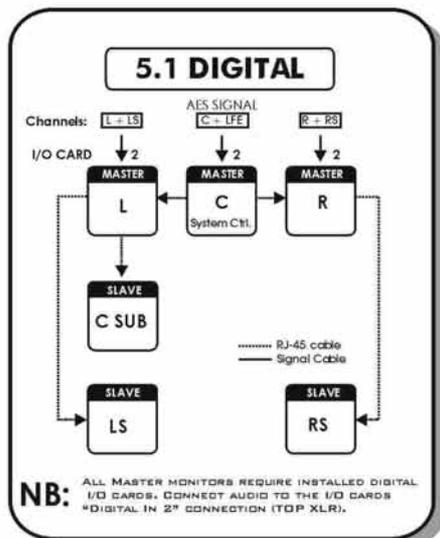
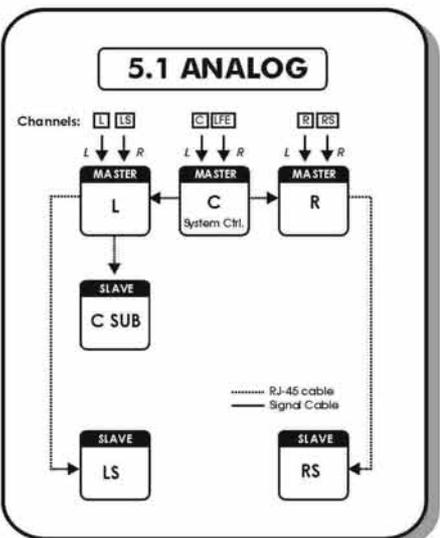
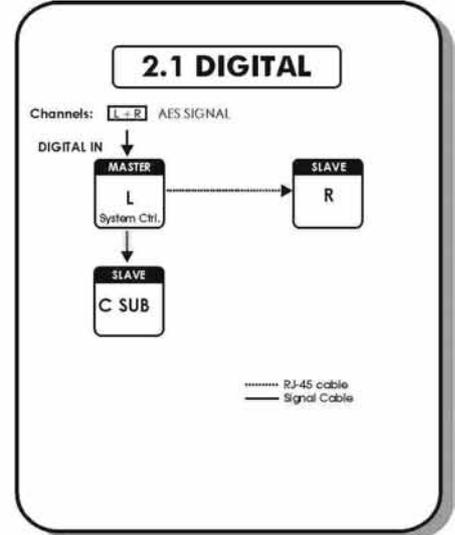
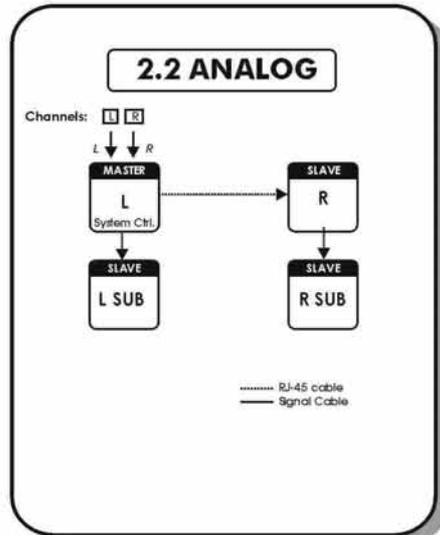
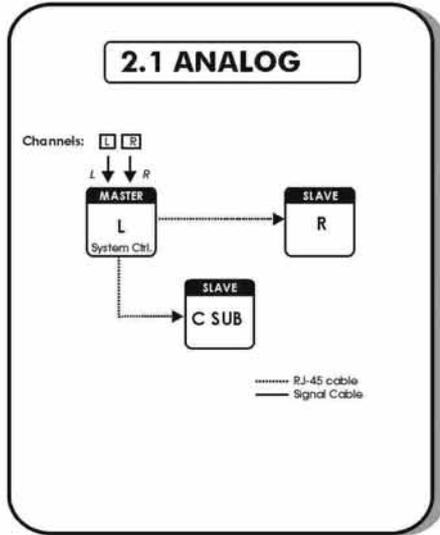
This Class B Digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations ICES-003.

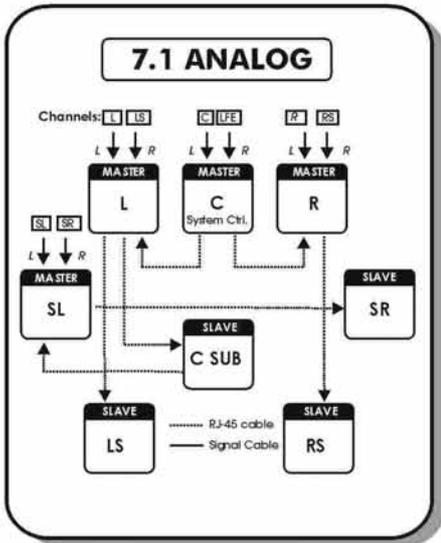
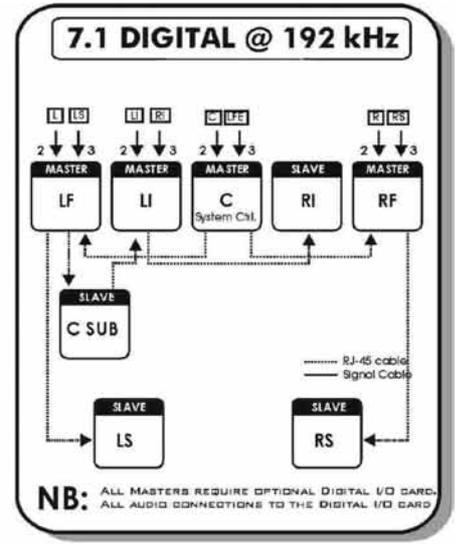
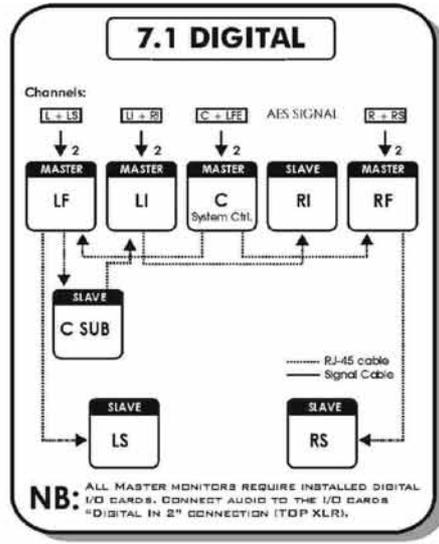
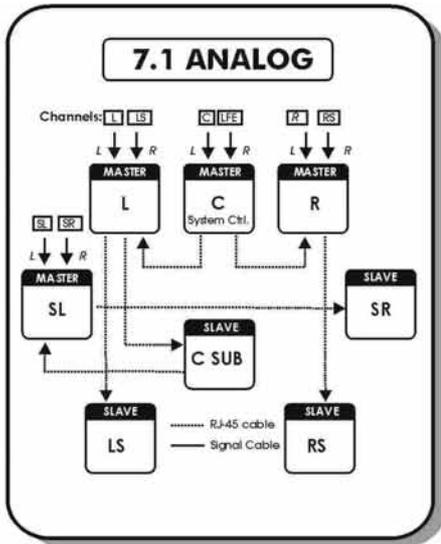
Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

QUICK SETUP GUIDE

Below is a quick guide on how to connect different variations of setups. Connections must be made exactly as illustrated. Detailed descriptions of the setups can be found on pages 16-24.





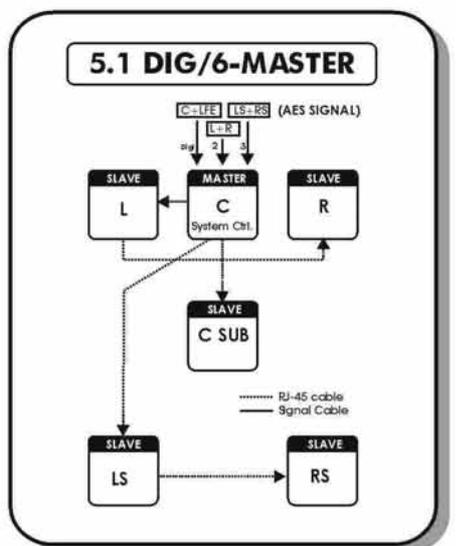
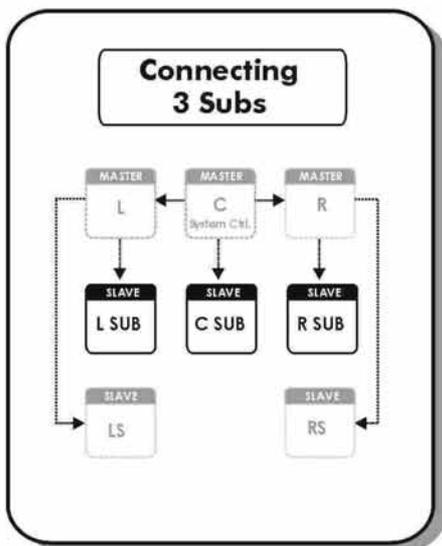
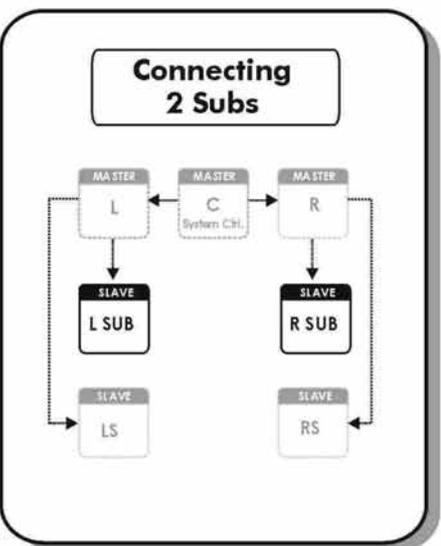
NOTE (7.1 only)

If you wish to set up your system with side channels as opposed to five "screen" channels:

Simply substitute LI (Left Inner) & RI (Right Inner), for SL (Side Left) & SR (Side Right) as shown in the adjacent diagram.

Follow the same format for 7.1 Digital & 7.1 Digital @ 192 kHz.

* SDDS® (Sony Dynamic Digital Sound®) is designed exclusively for motion picture theatres; there is no consumer equivalent.



Introduction

In order to maintain our leading position in the worldwide professional studio market, the core technologies of Tannoy are constantly being refined. The latest updates have resulted in a fully re-engineered Dual Concentric™ drive unit and an improved, ultra high performance SuperTweeter™, which is a key component within Tannoy's long-term development programme of WideBand™ technology. Due to our partnership with the TC Group of companies, Tannoy's highly experienced engineering team also have direct access to leading edge digital and electronic technologies.

The Ellipse iDP™ range represents state of the art studio monitors of immense ability, designed by Tannoy to exceed the performance expectations of the audio professional, integrating unique technology with such acoustic benefits as to ensure that there is much more to Ellipse iDP™ than innovative styling.

Precise room optimisation has now taken a quantum leap forward thanks to the development of Tannoy iDP™ (interactive Digital Programming) Technology and its incorporation into the Ellipse models. Ellipse iDP™ is a brand new and stunningly versatile intelligent active monitoring system, combining the unique Tannoy Dual Concentric™, WideBand™ technology with the latest cutting edge digital processing from TC Electronic.

Ellipse iDP™ studio monitors provide the professional user with complete control over the entire monitoring operation. Preset storage / recall and total acoustic alignment flexibility are all executed with ultimate precision via remote control. iDP™ technology also allows the user to control parameters in 'real time' - such as bass management, global level, recall of different preset settings, solo / mute functions etc. With its built-in equalization capability, perfect matching to the listening environment is possible. Each loudspeaker can be individually optimised, taking into account its exact position within the room relative to the room boundary, and its own performance relative to the acoustic properties of the room itself.

Incorporating DSP technology, networking intelligence, class D digital amplifiers, plus Tannoy's acclaimed driver technology, the Ellipse iDP™ loudspeakers provide new levels of performance and operation convenience in studio monitoring.

When any software updates become available, Ellipse iDP™ monitors in a setup can be updated via the network connections. This is done using a PC/Mac running iDP SOFT™ or PC-iP™ software.

Follow the Software update procedure as described, or refer to the section of this manual describing iDP SOFT™.

Concept & Design Philosophy

The following is an introduction to the concept behind the iDP™ system. Detailed setup guides and explanations of all of the parameter functions can be found in later sections of this manual.

Ellipse iDP™ Monitors offer the following advantages over conventional monitors:-

- Ⓢ System integration and networking (preset recall, central control)
- Ⓢ Flexibility/adjustment of processing parameters (to the room, personal preference etc.)
- Ⓢ Extreme precision. (Precise alignment of individual monitors at the factory)
- Ⓢ Improved audio quality (from intelligent algorithms, and precision custom filters)
- Ⓢ Direct Digital Reference (Digital Input)

Many of today's productions are produced or end up in digital format, Ellipse iDP™ Monitors allow precise monitoring of digital signal, by simply feeding the monitor with an AES/EBU signal. If digital signal is not being used Analog inputs are also provided as standard.

Ellipse monitors are an obvious choice for both stereo and surround setups in applications such as Music Recording/Mixing, Post production, Film, Broadcast, Video-editing etc.

Setting new standards for quality in reference monitoring, the Tannoy Ellipse iDP™ represents a new generation of active reference monitors featuring wide bandwidth technology. By linking the TannoyDual Concentric™ driver with a Tannoy WideBand SuperTweeter in an active system, carrying on the consistent frequency response and dispersion up to and beyond 40kHz, a true wide bandwidth monitoring system has been created for use with contemporary high rate digital audio.

Considerable design effort has gone into finding ways to move away from the conventional rectangular enclosure with its uninspiring appearance, resonant flat panels, internal standing waves and high-frequency diffraction problems. The resulting elliptical cabinet has a lot of advantages, and not just in the looks department.

TANNOY DUAL CONCENTRIC™

A complex driver design principle in itself, the Dual Concentric™ loudspeaker unit was first patented by the company in 1947. The continuous process of acoustic and materials development has brought us to the compact, sophisticated unit used in Ellipse iDP™:

- Ⓢ Comprising dual magnet assembly, high frequency Tulip WaveGuide™ and injection moulded polypropylene low/mid frequency cone.
- Ⓢ The clear acoustic advantages of the Dual design are not trivial matters to get right. For example, the cone is required to simultaneously reproduce the lower six octaves of the frequency spectrum, whilst acting as a continuation of the hyperbolic high frequency horn. The high frequency driver itself has to cover 4 octaves from midrange to 20kHz, with consistent amplitude, phase and dispersion. However, the design effort is worth it, as the intrinsic advantages of the Tannoy Dual Concentric™ are numerous.
- Ⓢ There is a coincident point source across the frequency spectrum, high, mid and low. The high sensitivity of the HF low-compression horn driver gives excellent headroom and freedom from thermal compression.
- Ⓢ The intrinsic time-alignment of the two component parts of the driver design allows true time-alignment to be achieved with a limited amount of electronic phase / time manipulation in the DSP crossover filters.

TANNOY WideBand™ SuperTweeter™

Continuing the frequency response to 50kHz, the pod-mounted SuperTweeter™ uses a specially developed dome with a rare earth magnet. The SuperTweeter is time-aligned to the Dual Concentric™, over a wide horizontal dispersion using custom DSP generated filters. The crossover frequency is very high at 20kHz, well away from the mid frequency band where sensitive stereo location information is concentrated. Listening at 1 metre on axis with the high frequency horn, the precise point where the signals synchronize, the SuperTweeter™ is undetectable as a separate source.

CABINET

Along with drive units, the enclosure design plays a major role in the acoustic performance of the monitoring system. A wide variety of shapes, techniques, and materials were researched, to arrive at the elegant, functional and eye-catching elliptical cabinet design. The form of the Tannoy Ellipse is significant. Conventional rectangular, sharp cornered boxes tend to suffer from diffraction and reflection problems caused by the cabinet boundaries - the often overlooked cause of many irregularities heard, and emitted sound field degradation measured, in the higher frequency areas.

With Ellipse however, these side diffraction anomalies have been minimized, and the SuperTweeter™ housing shape and position facilitate consistent, wide dispersion and accurate time-alignment, both on and off axis. The overall cabinet design concept is so effective at minimizing diffraction effects because the distance from the centre of the driver to the smoothly rounded edge of the cabinet is constantly changing, as is the angle of the diffracting edge, so these unwanted diffraction products are diffused in both time and direction. The laminated birch construction, with its massive MDF front and rear baffle panels, is inherently stiff. This results in an enclosure that is non-resonant, both acoustically and mechanically, while providing the optimum volume for the Dual Concentric™ drive unit for accurate low frequency reproduction.

High efficiency compact Switched Mode Power Supply (SMPS)

For saving on power consumption and to insure optimal performance, disregarding the quality of mains voltage, the unit is equipped with a high efficiency compact Switched Mode Power Supply (SMPS). Using switched technology both in amplifiers and power supply can reduce the heatsink size to about one third the size it would be with a regular power supply and class AB amplifiers.

Unpacking & Visual Checks

To remove the speakers from the carton without damage, open the box in the upright position and fold back the four flaps. Remove the top foam packaging and power cable then lift the unit out by gripping the cabinet, not the tweeter pod. Place the speaker on a stable surface and inspect for signs of transit damage - please note that nothing on, or in, your speakers should rattle. In the unlikely event of transit damage inform the carrier and supplier; keep all the damaged packaging, as this will show evidence of any careless handling.

Preliminary Recommendation

A word of warning on high sound levels - these speakers are capable of generating high output levels over sustained periods of time and such levels, over 95dBspl for 8 hours per day, can eventually cause permanent hearing loss. Since Tannoy monitors have a natural-sounding flat frequency response and low distortion, it's possible not to be aware just how high the sound level is high while working with them.

For continuous exposure we recommend the occasional use of a sound level meter. This should be capable of integrating the sound level over a period of exposure according to noise control standards and used just to check that noise levels are always within safety limits. It is usually accepted that 80dBspl is a safe level for continuous exposure.

Speaker Placement

Speaker placement, and the listening environment itself, can completely compromise the performance of any loudspeaker. It is important to understand some of the positional limitations of near-field speakers, and the operating environment, in order for you to gain maximum performance.

Your Ellipse iDP™ monitors have an integral rubber base that will allow non-slip, vibration free mounting on the near-field platform on your desk or a dedicated speaker stand. Alternatively the rubber base may be removed and an "Omnimount" wall bracket attached, increasing the range of mounting and location possibilities. The construction of the Ellipse incorporates magnetic shielding for the drive units. These monitors can therefore be used in close proximity to TV screens without any picture distortion. The greatest stray magnetic field is radiated from the front of the main driver, but it's unlikely you'd put your VDU right in front of the speaker. Side-by-side placement should be OK virtually touching, and, of course, modern non-CRT flat screens are unaffected by magnetic field.

Orientation

Where do you aim the speakers to give you the smoothest and most consistent sound?

How far apart do you place them to give you a good stereo image?

For a stereo set-up the basic rule is to arrange an equilateral triangle. The distance between the two monitors should be roughly the same as the distance between one monitor and your ears, this in the listening position where you are leaning forward on the console armrest.

This distance translates into a usual listening distance, for a near-field system, of around 1.3m (4'3") from each speaker, implying that the speakers will be around 1.3m (4'3") apart to create the normal equilateral arrangement applied in most stereo set-ups.

The speaker horizontal axis should be aimed at a point halfway between the two extremes of the listening positions (furthest forward and back) used when working. This is typically a range of about 600mm (24"). If possible, line up the vertical axis on a level with your ears referencing to the very centre of the Dual Concentric™ drive unit.

You can now confirm that you are on axis in both planes. First ensure that your head is in your normal listening position, look into the centre of the Dual Concentric™ high frequency unit wave guide, if you can see the gold colour of the HF driver dome in the centre of the WaveGuide™, then you are close to the ideal listening position. Also, having the monitors angled in towards the user minimises high frequency reflections from walls and outboard gear. Keeping close to this height, while moving around horizontally to access extremes of the desk and so on, will maintain a consistent frequency response; experienced as a wide "sweet spot" in which to work. For surround set-ups refer to specific ITU 775 or AES guidelines.

Master & Slave Concept

Two types of hardware exist for each Ellipse 8 iDP™ and Ellipse 10 iDP™ (with the exception of the Ellipse TS212 iDP™ subwoofer – Slave only).

Master – A Master unit is able to:

- Ⓢ Receive digital audio on AES/EBU connections (two channels)
- Ⓢ Receive analog audio (two channels)
- Ⓢ Send and receive audio and control data via the proprietary TC LINK connection

Master Monitor

- Ⓢ To Set a Master Monitor as the System Controller the TC LINK button on the rear panel must be left in the out position
- Ⓢ Only one of the Master units must be setup as the System Controller. This is achieved by leaving out the TC LINK button on the rear panel. (See below). Setting up a system is carried out from the System Controller monitor (unless you have iDP SOFT™ or PC-iP™), this includes set-up, task setting and calibration of all connected monitors.
- Ⓢ The Master unit distributes Audio and control data to the respective Slave units connected.

System Controller, Master or Slave

To set up a Master unit to be either System Controller or Master/Slave the LINK button on the rear panel must be set up correctly.

Out - The monitor operates as a System Controller

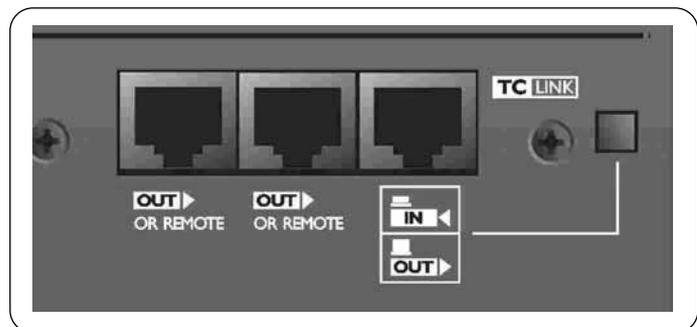
In - The monitor operates as either a regular Master with digital or analog Inputs are or as a Slave unit.

Inputs & Outputs

The Master unit contains AES/EBU and Analog input connectors and three Link connectors carrying both audio and control data to connected Slave units.

Connectors

- 1 x AES/EBU – XLR
- 2 x Analog inputs
- 2 x Link RJ45 connectors
- 1 x Link/Input RJ45 connector
- 1 x World Clock BNC sync



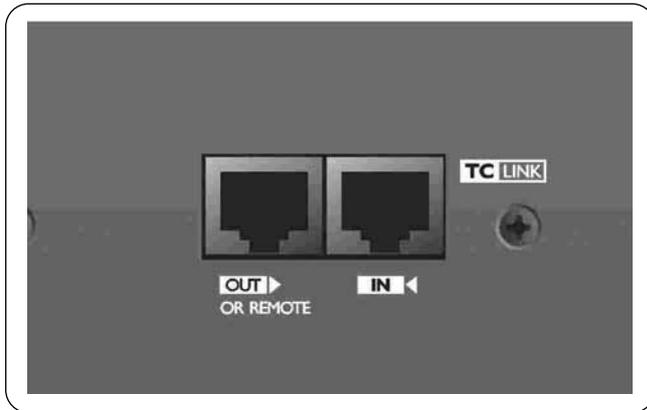
Master Monitor Network Connections

Option slot

The analog input module can be removed and replaced with an AES Digital Input card giving the option of sending all six channels in a 5.1 setup to one single Master monitor. From there the signal is distributed to 4 slave monitors and Sub via the TC LINK RJ-45 connections creating a fully digital 5.1 setup. The AES Digital input card is also required for other digital surround setups (See the Setups section of this manual)

Slave Monitor & Ellipse TS212 iDP™ Subwoofer

© The slave unit is able to receive and distribute audio and control data via the proprietary TC LINK connection



Slave Monitor Network Connections

The Slave and Sub units contain one RJ45 Input connector and one Link connector. Via the RJ45 input connector the Slave unit is supplied with audio and control data from the Master unit. Audio signal from the source is fed to the master monitor only and the signal is distributed to the connected slave units through a proprietary networking protocol. A master monitor acts exactly the same as a Slave monitor when its TC Link button is set to the "IN" position, hence it is used for audio inputs only. The network system enables all connected monitors in a setup, whether in a stereo or surround format always to be corresponding. Control of the entire system is possible from one point on the network (Master or Slave), providing great flexibility in terms of control.

Initializing the Network

After connecting the units and powering up for the first time, the Master unit scans the setup in order to determine the number of monitors connected. Each monitor is recognized via a unique serial number but can be renamed according to task. After the initial scanning of the set-up, the Master unit will be re-scanning the setup every 5 seconds in order to determine any change.

Remote Control

Ellipse iDP™ monitor systems can be set up and controlled locally via the Master monitor's user-interface with the optional remote control or from a PC/Mac. This is achieved by connecting the PC or remote to any free Link connector in the network. Control data is transmitted via the System Controller, and distributed to the other monitors in the network.

iDP SOFT™ - Software Remote

Parameters in the network including setup parameters can be controlled via iDP SOFT™. Additionally, any software upgrades which become available can be installed with this package.

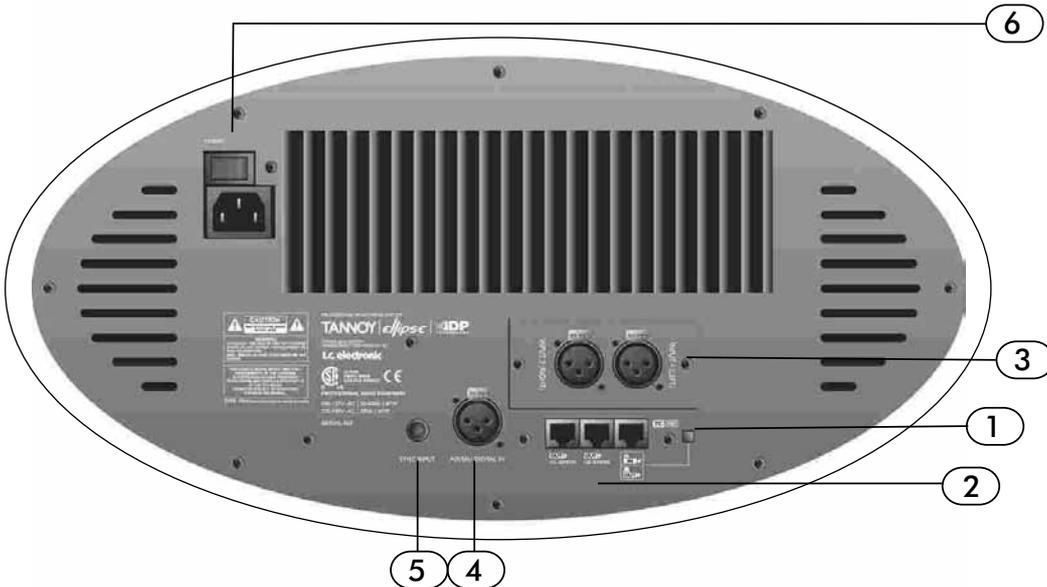
Hardware Remote

This remote control allows access to three user defined Reference level settings, recall of up to four presets, mute/un-mute and solo function for each monitor, and Master level adjustment.

Ellipse iDP PC-iP™

Optional software dedicated for the Advanced Installer. In addition to the common parameters the PC-iP™ software offers Parametric EQ and various Parameter Lock functions.

Master Unit

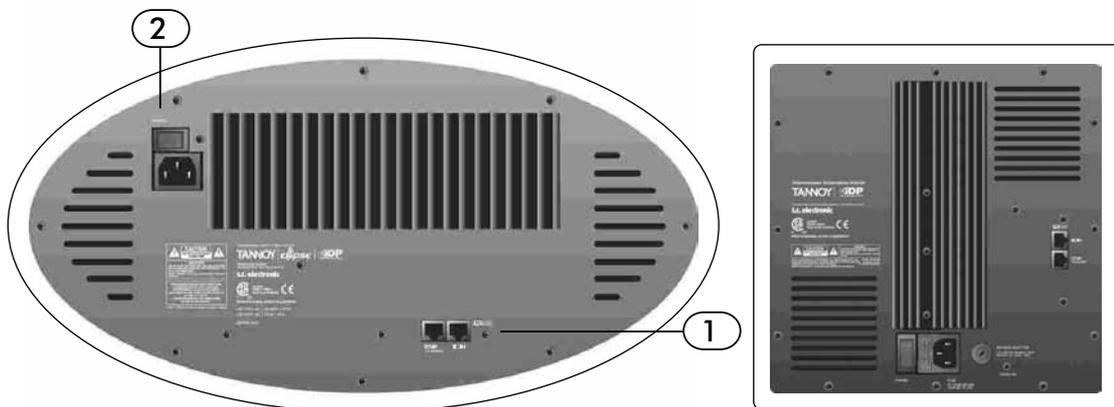


1. System controller/slave switch.
In the "out" position the monitor operates as a System Controller.
*** There can only be one system Controller in a setup.**
In the "in" position the monitor operates as a regular master or a slave unit.
2. RJ45 link connectors for downstream slave units, remote and PC control.
3. Analogue Inputs.
4. AES/EBU Digital Input
5. World Clock BNC Sync
6. Power Input 100-240v and Power ON/Off Switch.



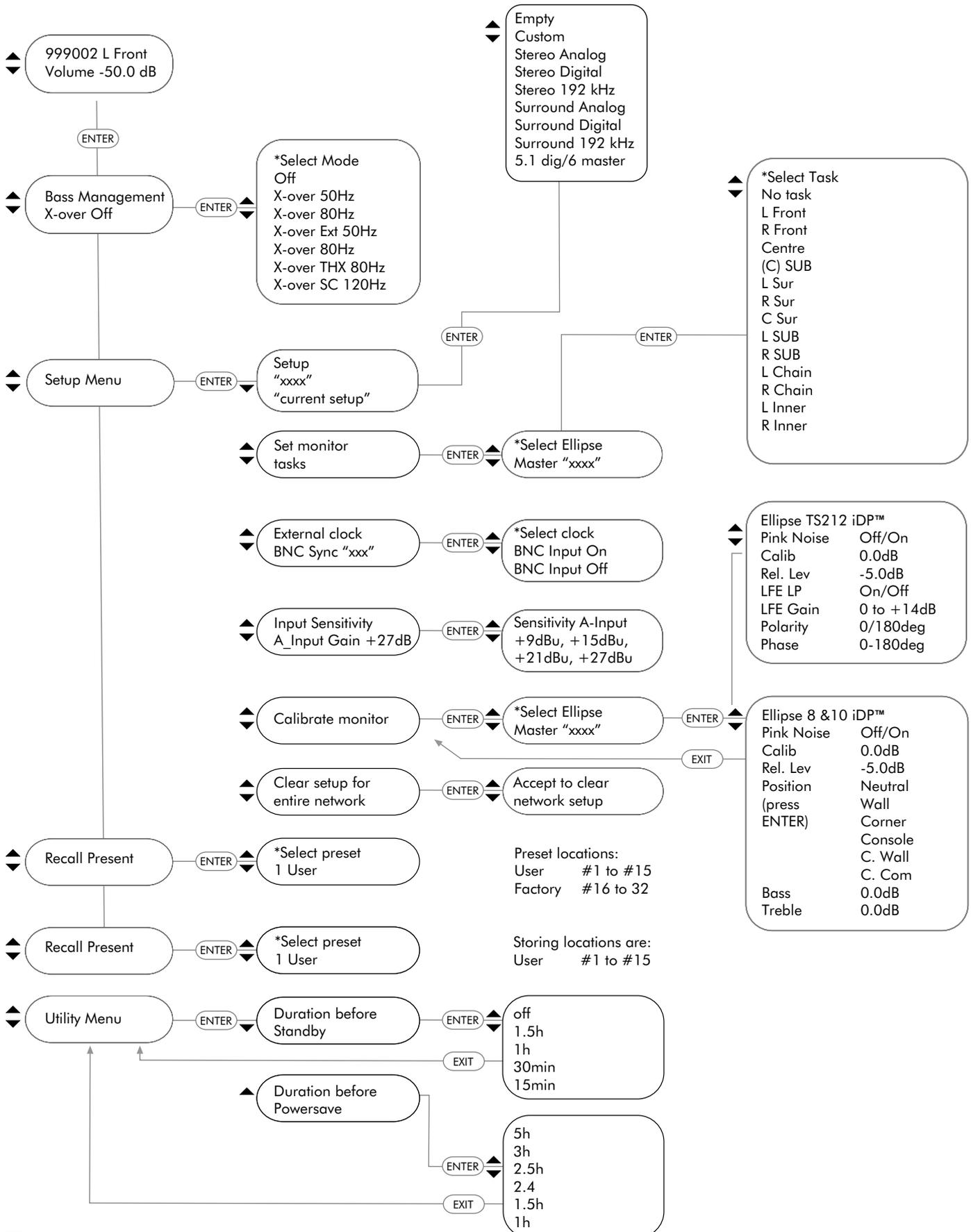
Optional Digital I/O Card
With this card installed in the master monitor. Analogue input slot a 5.1 Digital/ 6 Master setup becomes an option. Three AES/EBU connections (6ch) can then be fed to one master monitor and distributed downstream. See the "setups" section for further information.

Slave/Subwoofer

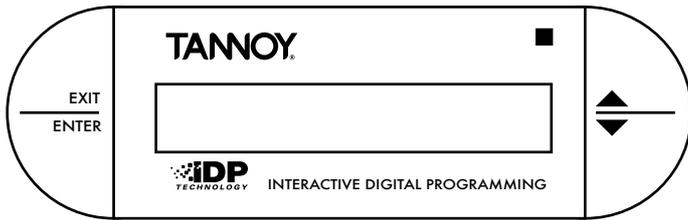


1. RJ45 Link Connections for downstream slave units, remote and PC control.
2. Power Input 100-240v and power ON/Off Switch.

Parameter structure accessible via the Ellipse monitor set as System Controller



The iDP™ Display - Master



ENTER key

The ENTER key has two main functions:

- To enter the menus currently displayed.
- To set the displayed parameter in Edit mode.

When a parameter can be edited via the CURSOR keys a "★" is set as the first character in front of the parameter.

EXIT key

The EXIT key is used to exit the current display and go to previous menu level.

Setting up - Introduction

To make your setup operate as intended correct cabling is **essential**. Choose one of the described setups and connect **exactly** as illustrated. The following section is a Quick-guide to get your system up and running. For instructions on how to place and calibrate monitors please read pages 25-31.

Setup including Subwoofer:

To activate the subwoofer, please choose an appropriate X-over frequency in the Bass Management menu. To read more about Bass management and subwoofer placement, please refer to page 28.

General Setup Procedure

- Decide which Setup you are going to build.
- Connect monitors exactly according to the illustrations on the following pages.
- Power up all monitors.
- Set one of the Master-monitors as System Controller according to the Setup illustrations. This is done by leaving the TC LINK button on the rear panel on OUT position.
- **NOTE: There can be only ONE System Controller in a setup.**

After "power-up" the System scans all connected monitors every 5 seconds.

Set tasks for all monitors via the System Controller until via the following procedure:

Enter Setup menu by pressing ENTER, ARROW DOWN, ENTER.

Select the setup type you are using.

Press ENTER again and the System will generate Pink Noise in one of the monitors.

Select appropriate task for the monitor currently fed with Pink Noise using the ARROW keys and press ENTER to confirm.

Continue allocating tasks for all monitors in the system.

Your monitor system is now set up ready for calibration and fine-tuning.

These procedures are described on pages 29-31.

PLEASE NOTE: These setups will ONLY operate correctly if connected according to the illustrations!

CURSOR UP/DOWN key

These keys are used for navigating and adjusting parameter values.

The previous page illustrates how to navigate through parameters using the iDP™ display.

Setups

General Setup Procedure

- Ⓢ Decide which Setup you are going to build.
- Ⓢ Connect the Ellipse iDP™ monitors exactly as shown on the following pages.
- Ⓢ Power up all monitors.
- Ⓢ Set one of the Master-monitors as the System Controller as shown on the Setup diagrams. Leaving the TC LINK button on the rear panel on the OUT position does this.
- Ⓢ **NOTE: There can be only ONE System Controller in a setup.**
- Ⓢ After "power-up" the System scans all connected monitors every 5 seconds.

Set tasks for all monitors from the System Controller (unless you have iDP SOFT™* or PC-iP™**)

- Ⓢ Enter Setup menu by pressing ENTER, ARROW DOWN, ENTER.
- Ⓢ Select the setup type you are using.
- Ⓢ Press ENTER again and the System will generate Pink Noise in one of the monitors.
- Ⓢ Select appropriate task for the monitor currently fed with Pink Noise using the ARROW keys and press ENTER to confirm.
- Ⓢ Continue allocating tasks for all monitors in the system.

Your monitor system is now set up ready for calibration and fine-tuning.

* iDP SOFT™ is explained later in this Manual

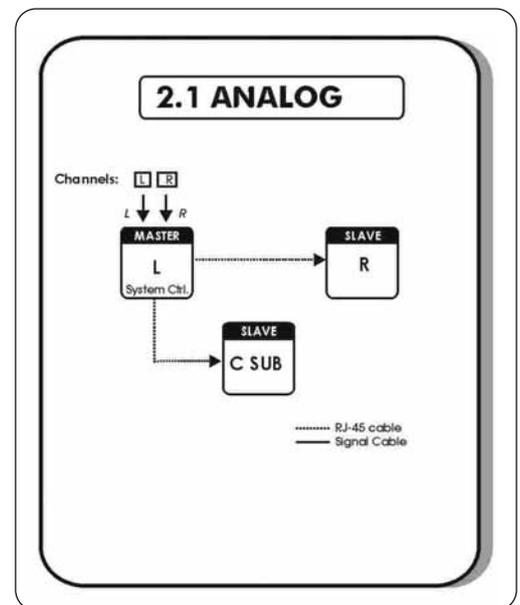
** Ellipse iDP PC-iP™ has it's own dedicated user manual

Analog Stereo Set-up With Mono Sub(s)

The diagram shows how to connect a stereo set-up with one subwoofer. If you are using a standard stereo set up (no subwoofer) then simply omit the subwoofer.

- Ⓢ The Left monitor is set as the System Controller by leaving out the TC Link button on the rear panel.
- Ⓢ The Left master monitor receives both the left and right input signals via the analog input connectors.
- Ⓢ The Right monitor and Sub receive audio and control via the output RJ45 TC Link connections on the Left (system controller) monitor.
- Ⓢ When no Bass management is selected, no signal will be sent to the subwoofer.
- Ⓢ When Bass management is selected, low frequency content from the left and right channels is extracted and sent to the subwoofer.
- Ⓢ The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link "out" connection.

! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.

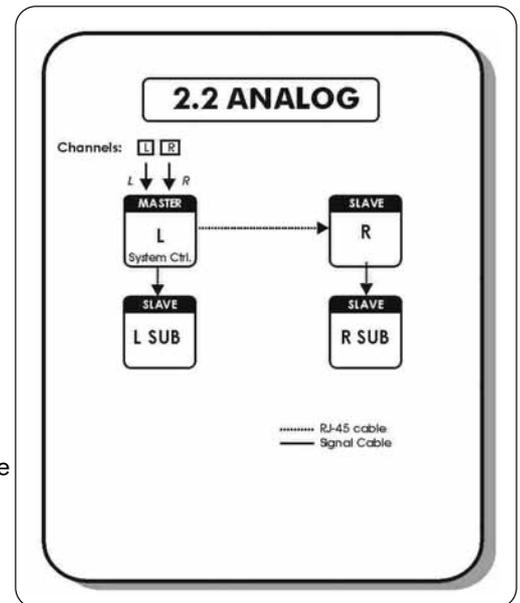


Analog Stereo Set-up With Stereo Subs

The diagram shows how to connect a stereo set-up with two subwoofers.

- ⊗ The Left monitor is set as the System Controller by leaving out the TC Link button on the rear panel.
- ⊗ The Left master monitor receives both the left and right input signals via the analog input connectors.
- ⊗ The Right monitor and Sub receive audio and control via the output RJ45 TC Link connections on the Left (system controller) monitor.
- ⊗ When no Bass management is selected, no signal will be sent to the subwoofers.
- ⊗ When Bass management is selected, low frequency content from the left channel is extracted and sent to the left subwoofer. Low frequency content from the right channel is extracted and sent to the right subwoofer.
- ⊗ The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link "out" connection.

⊗ **! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.**

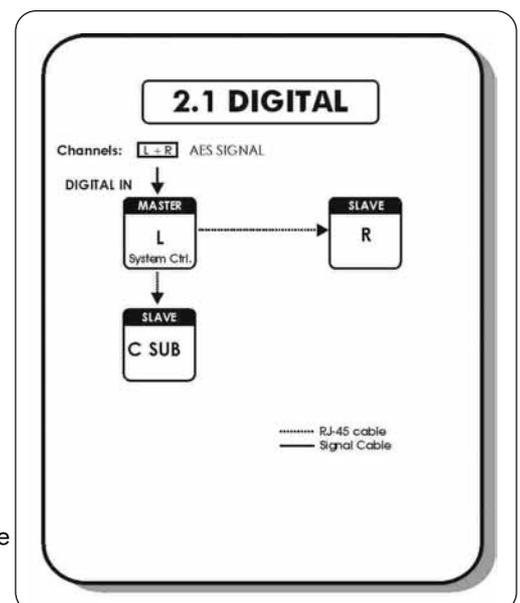


Stereo Digital Set-up With Mono Sub(s)

The diagram shows how to connect a digital stereo set-up with one subwoofer. If you are using a standard stereo set up (no subwoofer) then simply omit the subwoofer.

- ⊗ The Left monitor is set as the System Controller by leaving out the TC Link button on the rear panel.
- ⊗ The Left monitor receives both the left and right input signals via the AES input.
- ⊗ The right monitor and Sub receive audio and control via the output RJ45 TC Link connections on the Left (system controller) monitor.
- ⊗ When no Bass management is selected, no signal will be sent to the subwoofer.
- ⊗ When Bass management is selected, low frequency content from the left and right channels is extracted and sent to the subwoofer.
- ⊗ The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link "out" connection.
- ⊗ If using stereo subs connect in the same way as 2.2 analog.

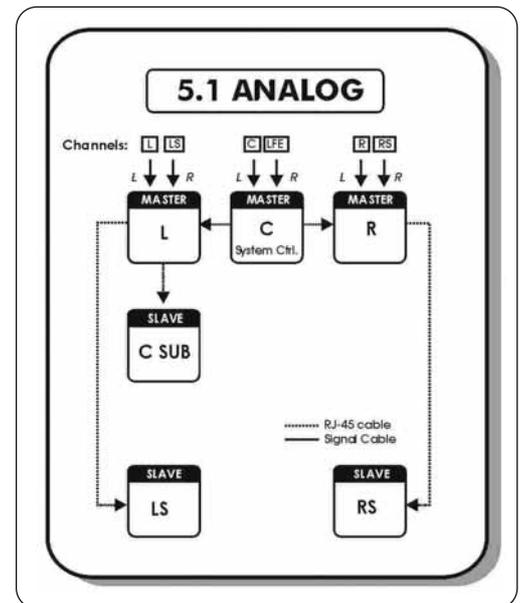
⊗ **! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.**



5.1 Analog Set-up

The diagram shows how to connect a 5.1 analog set-up.

- ⦿ The Centre monitor is set as the System Controller by leaving out the TC Link button on the rear panel.
- ⦿ The Centre monitor receives audio for both centre (input 1) & LFE channels (input 2) via the analog input connectors. The LFE subwoofer is fed via the RJ-45 connection from the left monitor.
- ⦿ RJ45 Network connections from the Centre monitor to the Left & Right monitors are required.
- ⦿ The Left Monitor receives audio for both Left (input 1) & LS channels (input 2) via the analog input connectors. The LS monitor is fed via the RJ-45 connection from the Left monitor.
- ⦿ The Right Monitor receives audio for both Right (input 1) & RS channels (input 2) via the analog input connectors. The RS monitor is fed via the RJ-45 connection from the Right monitor.
- ⦿ When no Bass management is selected, only the LFE signal will be sent to the subwoofer.
- ⦿ When Bass management is selected, low frequency content from the 5 main channels is extracted and sent to the subwoofer where it is summed with the LFE channel
- ⦿ The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link “out” connection.



! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.

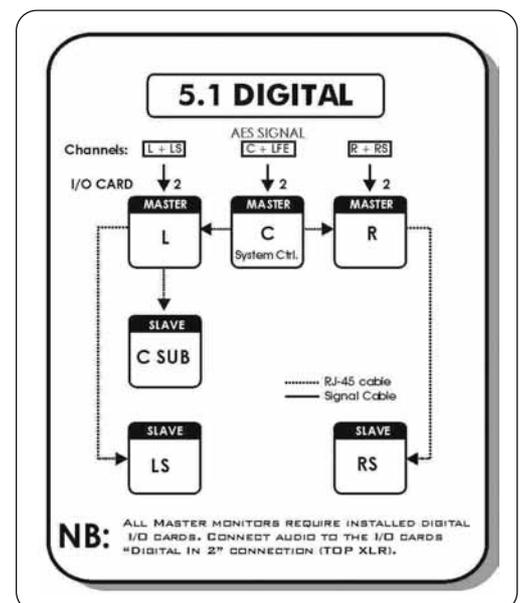
5.1 Digital Set-up

The diagram shows how to connect a 5.1 digital set-up.

All Master monitors require installed digital I/O cards.

AES signal is fed to input 2 of these cards.

- ⦿ The Centre monitor is set as the System Controller by leaving out the TC Link button on the rear panel.
- ⦿ The Centre monitor receives audio for both centre & LFE channels via the AES input connector (input 2). The LFE subwoofer is fed via the RJ-45 connection from the left monitor.
- ⦿ RJ45 Network connections from the Centre monitor to the Left & Right monitors are required.
- ⦿ The Left Monitor receives audio for both Left & LS channels via the AES input connector (input 2). The LS monitor is fed via the RJ-45 connection from the Left monitor.
- ⦿ The Right Monitor receives audio for both Right & RS channels via the AES input connector (input 2). The RS monitor is fed via the RJ-45 connection from the Left monitor.
- ⦿ When no Bass management is selected, only the LFE signal will be sent to the subwoofer.
- ⦿ When Bass management is selected, low frequency content from the 5 main channels is extracted and sent to the subwoofer where it is summed with the LFE channel
- ⦿ The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link “out” connection.

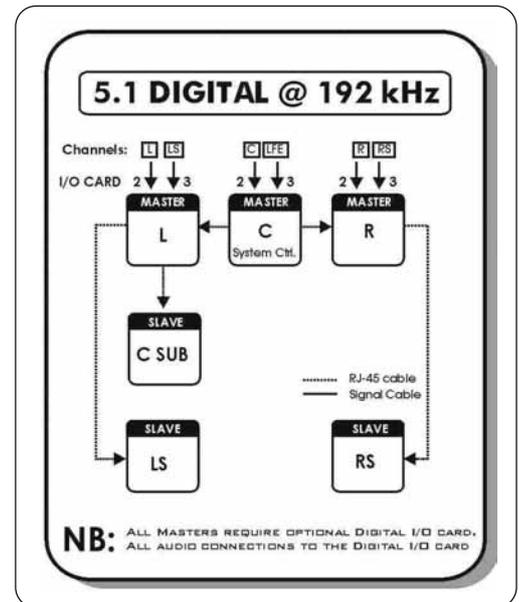


! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.

5.1 Digital 192kHz Set-up

The diagram shows how to connect a 5.1 digital set-up at 192kHz. All Master monitors require installed digital I/O cards. AES signal is fed to inputs 2&3 of these cards.

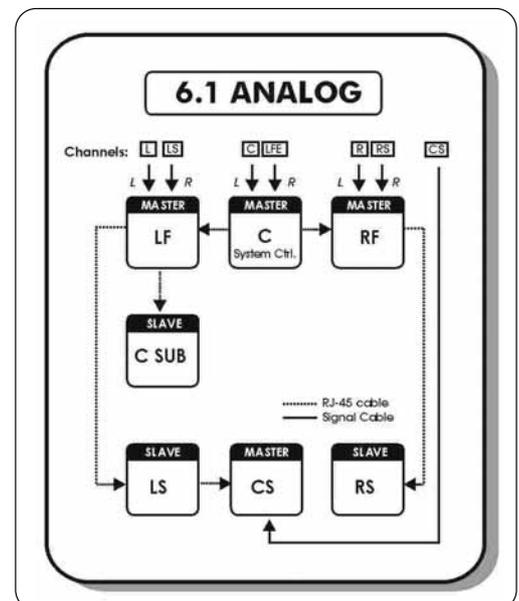
- ⦿ The Centre monitor is set as the System Controller by leaving out the TC Link button on the rear panel.
- ⦿ The Centre monitor receives audio for both centre & LFE channels via the AES input connectors (input 2 for Centre & input 3 for Sub). The LFE subwoofer is fed via the RJ-45 connection from the left monitor.
- ⦿ RJ45 Network connections from the Centre monitor to the Left & Right monitors are required.
- ⦿ The Left Monitor receives audio for both Left & LS channels via the AES input connector (input 2 for Left & input 3 for LS). The LS monitor is fed via the RJ-45 connection from the Left monitor.
- ⦿ The Right Monitor receives audio for both Right & RS channels via the AES input connector (input 2 for Left & input 3 for RS). The RS monitor is fed via the RJ-45 connection from the Left monitor.
- ⦿ Clock MUST be sent on the AES connection feeding the Centre/LFE channels (or on BNC).
- ⦿ When no Bass management is selected, only the LFE signal will be sent to the subwoofer.
- ⦿ When Bass management is selected, low frequency content from the 5 main channels is extracted and sent to the subwoofer where it is summed with the LFE channel
- ⦿ The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link “out” connection.
- ⦿ **! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.**



6.1 Analog Set-up

The diagram shows how to connect a 6.1 analog set-up.

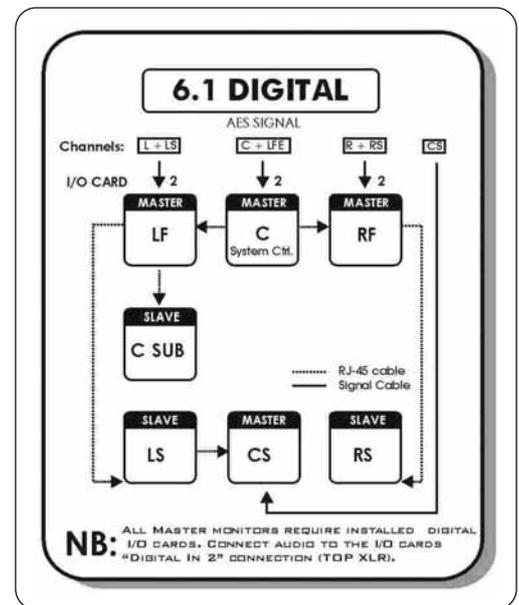
- ⦿ The Centre monitor is set as the System Controller by leaving out the TC Link button on the rear panel.
- ⦿ The Centre monitor receives audio for both centre (input 1) & LFE channels (input 2) via the analog input connectors. The LFE subwoofer is fed via the RJ-45 connection from the left monitor.
- ⦿ RJ45 Network connections from the Centre monitor to the Left & Right monitors are required.
- ⦿ The Left Monitor receives audio for both Left (input 1) & LS channels (input 2) via the analog input connectors. The LS monitor is fed via the RJ-45 connection from the Left monitor. The CS monitor is fed via the RJ-45 connector from the LS monitor. Audio for the CS monitor is fed to analog input connector 1.
- ⦿ The Right Monitor receives audio for both Right (input 1) & RS channels (input 2) via the analog input connectors. The RS monitor is fed via the RJ-45 connection from the Right monitor.
- ⦿ When no Bass management is selected, only the LFE signal will be sent to the subwoofer.
- ⦿ When Bass management is selected, low frequency content from the 5 main channels is extracted and sent to the subwoofer where it is summed with the LFE channel. (Only LF, Center, RF, LS, and RS contribute to the bass management signal.)
- ⦿ The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link “out” connection.
- ⦿ **! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.**



6.1 Digital Set-up

The diagram shows how to connect a 6.1 digital set-up. All Master monitors require installed digital I/O cards. AES signal is fed to input 2 of these cards.

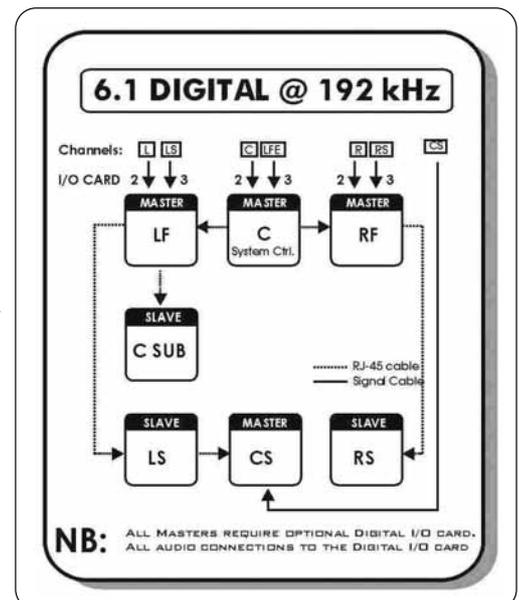
- ⊙ The Centre monitor is set as the System Controller by leaving out the TC Link button on the rear panel.
- ⊙ The Centre monitor receives audio for both centre & LFE channels via the AES input connector (input 2). The LFE subwoofer is fed via the RJ-45 connection from the left monitor.
- ⊙ RJ45 Network connections from the Centre monitor to the Left & Right monitors are required.
- ⊙ The Left Monitor receives audio for both Left & LS channels via the AES input connector (input 2). The LS monitor is fed via the RJ-45 connection from the Left monitor. The CS monitor is fed via the RJ-45 connector from the LS monitor. Audio for the CS monitor is fed to input 2.
- ⊙ The Right Monitor receives audio for both Right & RS channels via the AES input connector (input 2). The RS monitor is fed via the RJ-45 connection from the Left monitor.
- ⊙ When no Bass management is selected, only the LFE signal will be sent to the subwoofer.
- ⊙ When Bass management is selected, low frequency content from the 5 main channels is extracted and sent to the subwoofer where it is summed with the LFE channel. (Only LF, Center, RF, LS, and RS contribute to the bass management signal.)
- ⊙ The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link "out" connection.
- ⊙ **! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.**



6.1 Digital 192kHz Set-up

The diagram shows how to connect a 6.1 digital set-up at 192kHz. All Master monitors require installed digital I/O cards. AES signal is fed to inputs 2&3 of these cards.

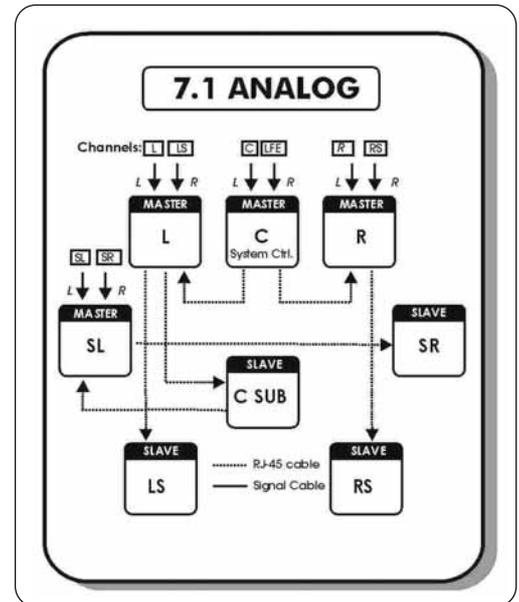
- ⊙ The Centre monitor is set as the System Controller by leaving out the TC Link button on the rear panel.
- ⊙ The Centre monitor receives audio for both centre & LFE channels via the AES input connectors (input 2 for Centre & input 3 for Sub). The LFE subwoofer is fed via the RJ-45 connection from the left monitor.
- ⊙ RJ45 Network connections from the Centre monitor to the Left & Right monitors are required.
- ⊙ The Left Monitor receives audio for both Left & LS channels via the AES input connector (input 2 for Left & input 3 for LS). The LS monitor is fed via the RJ-45 connection from the Left monitor. The CS monitor is fed via the RJ-45 connector from the LS monitor. Audio for the CS monitor is fed to input 2.
- ⊙ The Right Monitor receives audio for both Right & RS channels via the AES input connector (input 2 for Left & input 3 for RS). The RS monitor is fed via the RJ-45 connection from the Left monitor.
- ⊙ Clock MUST be sent on the AES connection feeding the Centre/LFE channels (or on BNC).
- ⊙ When no Bass management is selected, only the LFE signal will be sent to the subwoofer.
- ⊙ When Bass management is selected, low frequency content from the 5 main channels is extracted and sent to the subwoofer where it is summed with the LFE channel. (Only LF, Center, RF, LS, and RS contribute to the bass management signal.)
- ⊙ The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link "out" connection.
- ⊙ **! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.**



7.1 Analog Set-up

The diagram shows how to connect a 7.1 SDDS™ analog set-up.

- ⊙ The Centre monitor is set as the System Controller by leaving out the TC Link button on the rear panel.
 - ⊙ RJ45 Network connections for the system should be connected in the following way: -
 - Centre output to LF input
 - Centre output to RF input
 - LF output Sub input
 - Sub output to LI input
 - LF output to LS input
 - LI output RI input
 - RF output to RS input
 - ⊙ The Centre monitor receives audio for both centre (input 1) & LFE channels (input 2) via the analog input connectors.
 - ⊙ The LF monitor receives audio for both LF (input 1) & LS channels (input 2) via the analog input connectors.
 - ⊙ The LI monitor receives audio for both LI (input 1) & RI channels (input 2) via the analog input connectors.
 - ⊙ The RF monitor receives audio for both RF (input 1) & RS channels (input 2) via the analog input connectors.
 - ⊙ When no Bass management is selected, only the LFE signal will be sent to the subwoofer.
 - ⊙ When Bass management is selected, low frequency content from the 5 main channels is extracted and sent to the subwoofer where it is summed with the LFE channel. (Only LF, Center, RF, LS, and RS contribute to the bass management signal.).
 - ⊙ The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link “out” connection.
- ! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.**

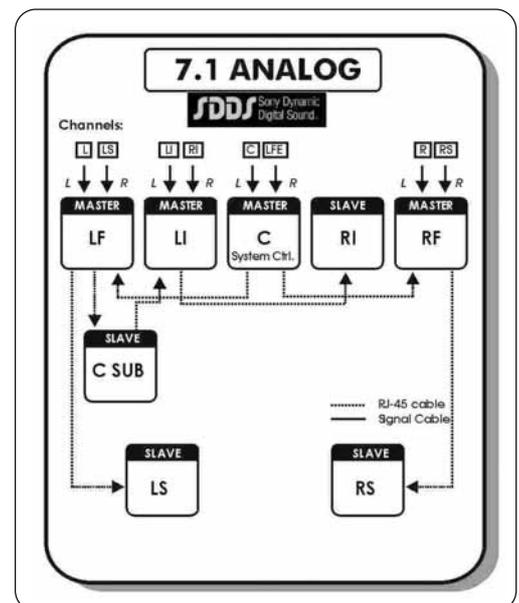


7.1 Digital Set-up

The diagram shows how to connect a 7.1 SDDS™ digital set-up.

- ⊙ The Centre monitor is set as the System Controller by leaving out the TC Link button on the rear panel.
 - ⊙ RJ45 Network connections for the system should be connected in the following way: -

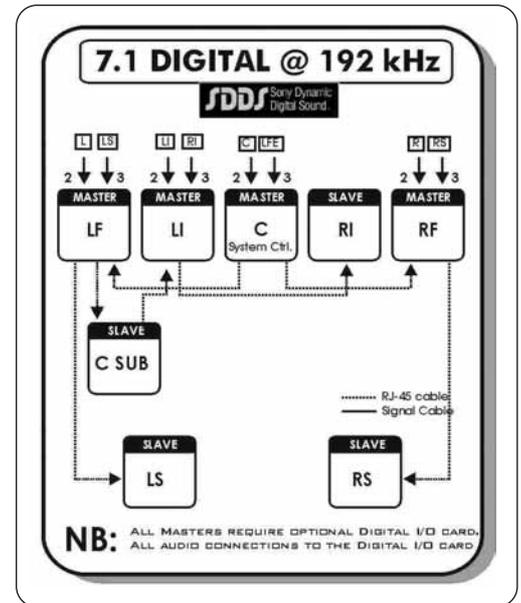
Centre output to LF input	LF output to LS input
Centre output to RF input	LI output RI input
LF output Sub input	RF output to RS input
Sub output to LI input	
 - ⊙ The Centre monitor receives audio for both centre & LFE channels via the AES input connector (input 2).
 - ⊙ The LF monitor receives audio for both LF & LS channels via the AES input connector (input 2).
 - ⊙ The LI monitor receives audio for both LI & RI channels via the AES input connector (input 2).
 - ⊙ The RF monitor receives audio for both RF & RS channels via the AES input connector (input 2).
 - ⊙ When no Bass management is selected, only the LFE signal will be sent to the subwoofer.
 - ⊙ When Bass management is selected, low frequency content from the 5 main channels is extracted and sent to the subwoofer where it is summed with the LFE channel. (Only LF, Center, RF, LS, and RS contribute to the bass management signal.).
 - ⊙ The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link “out” connection.
- ! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.**



7.1 Digital 192kHz Set-up

The diagram shows how to connect a 7.1 SDDS™ 192kHz set-up.

- ⊙ The Centre monitor is set as the System Controller by leaving out the TC Link button on the rear panel.
 - ⊙ RJ45 Network connections for the system should be connected in the following way: -
 - Centre output to LF input
 - Centre output to RF input
 - LF output Sub input
 - Sub output to LI input
 - LF output to LS input
 - LI output RI input
 - RF output to RS input
 - ⊙ The Centre monitor receives audio for both centre & LFE channels via the AES input connectors (input 2 for Centre & input 3 for Sub).
 - ⊙ The LF monitor receives audio for both LF & LS channels via the AES input connectors (input 2 for LF & input 3 for LS).
 - ⊙ The LI monitor receives audio for both LI & RI channels via the AES input connectors (input 2 for LI & input 3 for RI).
 - ⊙ The RF monitor receives audio for both RF & RS channels via the AES input connectors (input 2 for RF & input 3 for RS).
 - ⊙ When no Bass management is selected, only the LFE signal will be sent to the subwoofer.
 - ⊙ When Bass management is selected, low frequency content from the 5 main channels is extracted and sent to the subwoofer where it is summed with the LFE channel. (Only LF, Center, RF, LS, and RS contribute to the bass management signal.).
 - ⊙ The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link "out" connection.
- ⊙ **! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.**



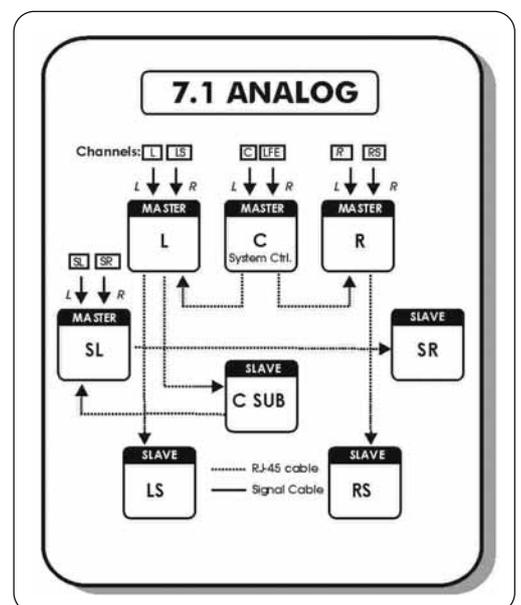
Alternative 7.1 Set-up.

Analog, Digital & 192kHz

If you wish to set up your system with side channels as opposed to five "screen" channels:

Simply substitute LI(Left Inner) & RI(Right Inner), for SL (Side Left) & SR(Side Right) as shown in the adjacent diagram. Follow the same format for 7.1 Digital & 7.1 Digital @ 192 kHz.

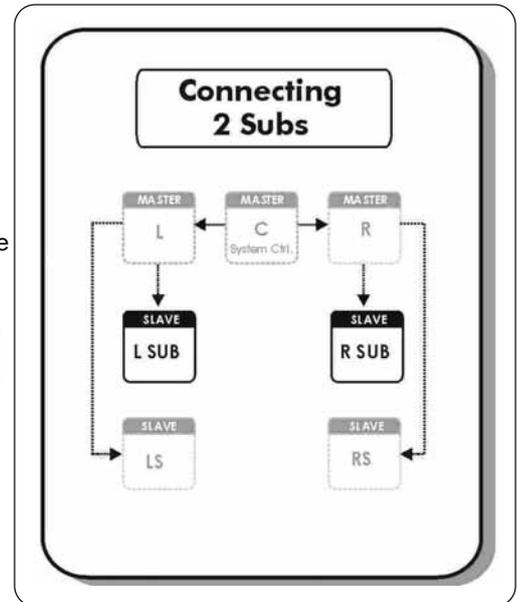
* SDDS™ (Sony Dynamic Digital Sound™) is designed exclusively for motion picture theatres; there is no consumer equivalent.



Connecting Two Subs

- Two Subs can be connected to any of the above Set-Ups
- When no Bass management is selected, no signal will be sent to the subwoofers.
- When Bass management is selected, low frequency content from the left channel is extracted and sent to the left subwoofer. Low frequency content from the right channel is extracted and sent to the right subwoofer.
- The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link “out” connection.

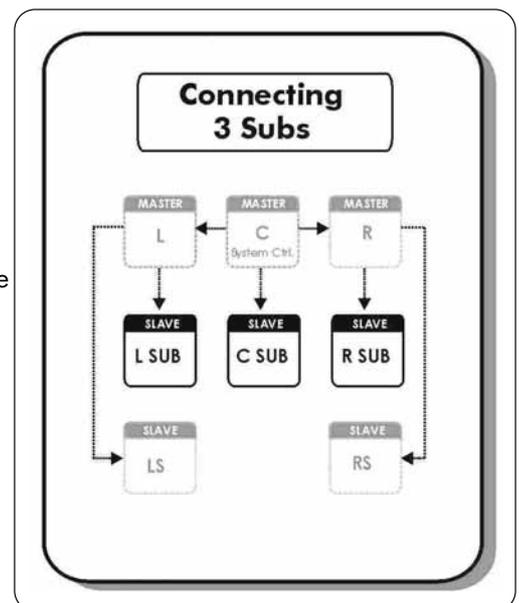
! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.



Connecting Three Subs

- Three subs can be connected to any of the above Set-Ups
- When no Bass management is selected, no signal will be sent to the subwoofers.
- When Bass management is selected, low frequency content from the left channel is extracted and sent to the left subwoofer. Low frequency content from the right channel is extracted and sent to the right subwoofer. Low frequency content from the centre channel is extracted and sent to the centre subwoofer.
- The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link “out” connection.

! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.

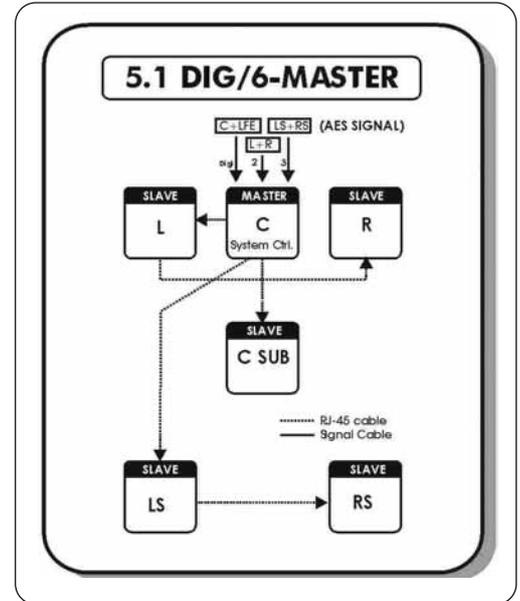


5.1 Dig/6 - Master

The diagram shows how to connect a 5.1 digital set-up using a single master unit. The set-up requires one master monitor with the Digital AES\EBU input card installed, four slave monitors and one subwoofer.

- ⊙ The Centre monitor is set as the System Controller by leaving out the TC Link button on the rear panel.
- ⊙ The Centre monitor receives all six channels on the three AES\EBU connections:-
Audio for the Centre and LFE channels are connected to the monitors Digital IN connector.
Audio for the Left and Right channels are connected to the monitors Digital IN No.2 connection on the I/O card.
Audio for the LS and RS channels are connected to the monitors Digital IN No.3 connection on the I/O card.
- ⊙ RJ45 Network connections from the Centre monitor to the Left, LS & subwoofer are required. Network connections from the Left to Right, and LS to RS are required.
- ⊙ Clock MUST be sent on the AES/EBU connection feeding the Centre/LFE channels (or on BNC)
- ⊙ When no Bass management is selected, only the LFE signal will be sent to the subwoofer.
- ⊙ When Bass management is selected, low frequency content from the 5 main channels is extracted and sent to the subwoofer where it is summed with the LFE channel
- ⊙ The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link "out" connection.

⊙ **! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.**

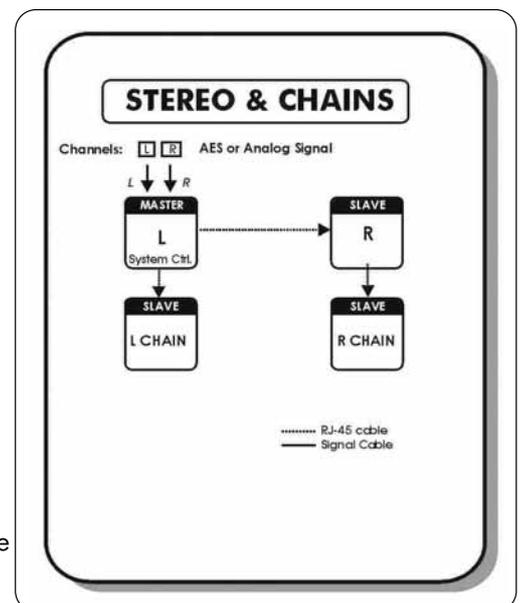


Stereo Set-up With Chains on L&R. Analog or Digital

This diagram shows how to connect a stereo setup with chains on Left and Right. The chained monitors are fed with the same signal as the front L&R monitors. This is the type of setup you would use if you are alternating between a set of main (Ellipse10 iDP) and nearfield (Ellipse 8 iDP) monitors. With this type of set-up only one master is required.

- ⊙ The Left monitor is set as the System Controller by leaving out the TC Link button on the rear panel.
- ⊙ The Left master monitor receives both the left and right input signals via the analog or AES\EBU input connector(s).
- ⊙ The Right monitor receives audio and control via the output RJ45 TC Link connections on the Left (system controller) monitor.
- ⊙ The Left monitor receives audio and control via the output RJ45 TC Link connector on the Left (system controller) monitor.
The Right monitor receives audio and control via the output RJ45 TC Link connector on the Right monitor.
- ⊙ The iDP™ Remote, iDP SOFT™ or PC-iP™ can be connected to any spare TC Link "out" connection.

⊙ **! REMEMBER – To set a master monitor as the system controller the TC Link button on the rear panel MUST be in the out position.**



- ⊙ The "Chained" option is also achievable in all surround formats

SETUP when the monitors are connected

The following is a simple operational setup guide, which is carried out after the monitors are connected. The assumption is made that you will be navigating the menus via the LCD display on the master monitor. If you have purchased the optional software packages then refer to the iDP SOFT™ section of this manual. If you are using the PC-iP™ advanced installers package then refer to the user manual included with this package.

1. Connect the monitors
The monitors must be connected exactly as shown in the previous illustrated setup diagrams.
Turn on the power on each monitor.
2. Set one monitor as the System Controller
Only one master monitor in the network can be set as the System Controller. Refer to the setup diagrams to determine which monitor this should be. To set the master monitor as the system controller make sure the TC LINK button on the rear panel is in the out position. All other master monitors in the setup must be set to operate as "slaves", this is done by pressing the TC Link button to the "in" position. If you are changing the operational mode of the monitor you will be asked to confirm: -
"Mode changed set as slave?" or "Mode changed set as sys. Controller?"
Confirm by pressing the "Enter key on the Master Display"
3. The gain setting is the first item in the main menu. The default setting in the main menu after switching on menu is -50dB. You may have to increase this value slightly in order to hear the pink noise when setting the monitor tasks (see 8.)
4. Setting Bass Management
The next item in the main menu is Bass Management. Select the required Mode:-

Off
X-over 50Hz
X-over 80Hz
X-over Ext 50Hz
X-over Ext 80Hz
X-over THX 80Hz
X-over SC 120Hz

In stereo setups with subwoofers, the subs will only operate when the Bass Management is activated
5. Setup Menu
Go to Setup Menu and press Enter

6. Reset Procedure

Three different levels of "Reset" exist. For the three Reset levels all connected monitors will be affected. Select between the following reset options: -

The Reset functions are accessed by holding the ENTER key on the System Controller while powering up:

- ⊗ **Clear Monitor Settings**
All global and local parameters in connected monitors are reset. Preset and network settings are not affected.
- ⊗ **Reset All Settings**
This is a factory reset procedure that deletes all global and local parameter settings as well as preset and network settings.

The following reset procedure is found in the Setup menu:

- ⊗ **Clear Setup for entire network**
Select this reset procedure to clear all network settings.

7. Select Setup

You must define which type of setup you have: -

Empty
Custom
Stereo Analog
Stereo Digital
Stereo 192kHz
Surround Analog
Surround Digital
Surround 192kHz
5.1 dig/6 Master

8. Select Monitor Tasks

Select first Monitor and press Enter.
Pink noise will be generated in one of the monitors in the setup.

Set Monitor Tasks

Choose the matching task for the position from where the pink noise is generated, for example, "Master L Front"
Press Exit when complete.

9. External Source

BNC Input On - The monitor attempts to lock on the World Clock BNC connection.

BNC Input Off - The monitor will attempt to lock on the AES Input.

Parameter Description

Basic operation in all menus (when navigating the menus via the LCD display)

- ⊙ Use ARROW keys to select value or submenu
- ⊙ Use ENTER to enter menus or for confirmation, and to activate
- ⊙ Use EXIT to step to a higher level or to decline an operation
- ⊙ Values are marked with an “ * ” when they can be altered via the ARROW keys

Main Display

The Main Display indicates the position of the monitor (when set up) and the set volume for the monitor. A “+” symbol indicates that this specific Master Unit has been set up to act as System Controller.

Bass Management †

Bass management is possible in:

- Standard Stereo with 1 Sub
- Standard Stereo with 2 Subs
- All surround modes

The Ellipse monitors utilize 2nd order Hi Pass filters to attenuate frequencies below the set crossover frequency. The Ellipse TS212 iDP™ Subwoofer utilises 4th order Low Pass filter to attenuate frequencies above the set crossover frequency.

⊙ Press ENTER to access the Select Mode

Off - Bass Management is not activated. Only the LFE channel is distributed to the Sub.

Available Crossover Frequencies:

Menu Name	Ellipse Filter	Sub 4 th Order	Sub 2 nd Order	LFE = Sub
X-Over 50 Hz	50Hz	50Hz	50Hz	No
X-Over 80 Hz	80Hz	80Hz	80Hz	No
Extension 50 Hz	Off	50Hz	50Hz	No
Extension 80 Hz	Off	80Hz	80Hz	No
THX Sim 80 Hz	80Hz	80Hz	Off	Yes
Small Cons 120 Hz ††	120Hz	120Hz	80Hz	Yes

† PC-iP

Via the iDP PC-iP™ installer package (optional software for the advanced installer) an advanced Bass Management mode is available. In this mode a greater number of frequencies can be chosen, and all filters (Ellipse HPF, Sub 4th order and Sub 2nd order) can be controlled to suit demanding & critical setups.

†† **Small Cons** - Small Consumer (filter to mimic a small consumer speaker)

Bass Management

Bass management (sometimes called bass redirection) is a very important and useful tool. With conventional studio monitors external electronics is required to achieve bass management. It is in general an absolute necessity if you want to make a multi-channel set-up in a small room. The bass management system is designed to subtract the bass contents of all main channels and reproduce this by the use of a subwoofer. iDP™ systems provide a number of possible crossover frequencies that can be determined by the user.

In a basic 2-channel or 5-channel set-up (e.g. ITU-775) a sub-woofer is not specified and is not required. But producing audio tracks to be played back on consumer equipment, one has to ensure that the mix will sound right in this situation. Many consumer set-ups contain a subwoofer, hence it is very important to check what the summing of the bass is like. If the program material basically is out of phase, the bass will be cancelled when summed electrically. But this is not the case if the bass signals are reproduced by the main monitors and summed acoustically.

Important iDP™ parameters to consider when using Bass Management:-

LFE Low Pass Filter

Switches on/off a very steep (7th order) low pass filter at 120 Hz. When switched on, the LFE signal filters out content above 120 Hz. This filter should be switched on when a media encoder is not in use and switch it off when your signal is being played back through a decoder (Most media encoders - DTS, Dolby etc. - employ an anti-aliasing low-pass filter. Therefore in a production environment it is important use this filter when monitoring the LFE channel in order to access how the signal will sound after encoding / decoding (in a domestic or cinema environment).

LFE Gain

Range: 0 to +14dB

The LFE channel can be boosted by up to 18dB using this parameter.

Polarity

Range: 0 or 180°

If the Subwoofer is correctly placed, setting the Polarity parameter at 180° should result in a full Phase cancellation at the set cross over frequency. If this is not the case – the Phase parameter described below should be adjusted.

Phase

Range: 0 to 180°

Phase Introduction

The integration of the Ellipse TS212 iDP™ subwoofer with the Ellipse iDP™ monitors requires on-site tuning for best results. Apart from level calibration and choosing a Bass Management Crossover (X-over) frequency, the issue of phase alignment remains.

For this purpose, the Ellipse TS212 iDP™ subwoofer has a 0-180 degree phase adjustment (in 5 degree steps) and a Phase Reverse function. The optimal setting of these parameters will depend on several factors:

1. Room acoustics
2. Placement of monitors and listening position
3. Choice of crossover frequency
4. Whether the Ellipse 8 iDP™ or Ellipse 10 iDP™ Monitor is being used.

Phase settings are automatically saved and linked to the currently selected Crossover frequency.

Phase settings are Global settings and are therefore are not saved with individual presets.

Setup Menu

⊙ Press **ENTER** to access sub-menus

Setup

⊙ Press **ENTER** to access select mode. Select mode is indicated by " * "

⊙ Press **ENTER** to confirm choice

Empty
Custom
Stereo Analog
Stereo Digital
Stereo 192kHz
Surround Analog
Surround Digital
Surround 192kHz
5.1 dig/6 Master

Set Monitor Task

For the System Controller/Master monitor to identify and operate all monitors in the setup, each monitor must be given one of the following tasks indicating function and position.

No Task	L SUB
L Front	R SUB
R Front	LS Chain
Center	RS Chain
(C) SUB	L Inner
L Sur	R Inner
R Sur	Custom 1-4 (Reserved for future use)
C Sur	

- ⊙ Press **ENTER** to access task options
- ⊙ Use **ARROW** keys to select task
- ⊙ Press **ENTER** to confirm selected task

External Clock

⊙ Press **ENTER** to access sub-menus

BNC Sync On:

The monitor attempts to lock on the World Clock BNC.

BNC Sync Off:

The monitor will attempt to lock on the AES Input.

Calibrate Monitor

- ⊙ Press **ENTER**
- ⊙ Select monitor to calibrate using the **ARROW** keys
- ⊙ Press **ENTER**

Parameters available for Ellipse 8 iDP™ and Ellipse 10 iDP™:-

Pink Noise	-	On/Off
Calibrate	-	Level calibration of the selected monitor. Range -6dB to +6dB
Rel.Lev.	-	Relative preset volume for the selected monitor relative to the calibrated and global volume. Range -40dB to 0dB
Room Position	-	Neutral Wall Corner Console C. Wall - Console Wall C. Corn - Console Corner
Bass	-	Bass adjustment for the selected monitor. Range -6dB to +6dB
Treble	-	Treble adjustment for the selected monitor. Range -6dB to +6dB

Parameters available for Ellipse TS212 iDP™ Subwoofer: -

Pink Noise	-	On/Off
Calibrate	-	Level calibration of the selected monitor. Range -18dB to +6dB
Rel.Lev.	-	Relative preset volume for the selected monitor relative to the calibrated and global volume. Range -40dB to 0dB
LFE – Low Pass	-	Low pass filter on the LFE channel attenuating frequencies above 120Hz
LFE Gain	-	With this parameter you can boost the acoustic gain of the LFE channel Range -6dB to +8dB
Polarity	-	If the Subwoofer is correctly placed, setting the Phase Reverse parameter at 180° should result in a full Phase cancellation at the set Crossover frequency. If this is not the case - the Delay parameter should be adjusted. Range: 0 or 180°
Phase	-	To time-compensate if the Sub is not placed according to the ITU 775 recommendations. There are individual Phase settings for each of the Bass Management Crossover frequencies. Once set, these are stored as Global settings. Range: 0 to 180°

LFE channel - important

Please note that in general the LFE channel should be mixed with +10dB headroom. If you are not able to boost your LFE monitor output from your console, +10dB gain can be added on your Ellipse TS212 iDP™ Subwoofer input. Most encoder/decoder formats take the LFE boost into account, meaning that you should leave the Ellipse TS212 iDP™ Subwoofer LFE gain at 0dB when playing back DTS or DOLBY encoded material on your Ellipse IDP system. LFE gain is set at 0dB in all factory presets, if you need to add gain on your Ellipse TS212 iDP™ Subwoofer please adjust this parameter and store the new setting in a user preset location.

Parameter Categories

Global Parameters

These parameters apply to the entire system: -

Global parameters stored with presets

- ⊙ Bass Management
- ⊙ Mute Status

Global parameters NOT stored with presets

- ⊙ Ref. Levels
- ⊙ Analog Input Sensitivity
- ⊙ Selected Setup
- ⊙ BNC Sync

Local Parameters

These parameters apply to individual Ellipse monitors: -

Local parameters stored with presets

- ⊙ X-Curve
- ⊙ Parametric EQ setting (set via optional PC-iP™)
- ⊙ LFE Gain (subs)
- ⊙ LFE Low Pass (subs)
- ⊙ Rel. Level

Local parameters NOT stored with presets

- ⊙ Bass and Treble
- ⊙ Delay
- ⊙ Lock status (set via optional PC-iP™)
- ⊙ Room position
- ⊙ Calibration Level
- ⊙ Tasks
- ⊙ Phase (Subs)
- ⊙ Polarity (Subs)

Recall

- ⊙ Press **ENTER** and use **ARROW** keys to select presets
- ⊙ Press **ENTER** to recall/load the selected preset

If no user-preset are stored on locations 1 to 4, presets 16 to 19 are loaded instead.

Complete preset list is available on page 52.

Store

- ⊙ Press **ENTER** and select storage location using the **ARROW** keys
- ⊙ Press **ENTER** again to store.

Storage location can be 1-15.

Parameter can be locked via the optional PC-iP™ Installers software. When trying to change values on a locked parameter the LCD display reads "Locked".

iDP™ Remote

The iDP™ remote is available and can perform the following functions: -

- ⊗ Instant access of three different user defined Reference Level settings.
- ⊗ Instant Preset Recall function of up to 4 presets. This way you can easily switch between different setups from your listening position.
- ⊗ Mute/un-mute and solo function for each monitor in the setup.
- ⊗ Simple Master level adjustment using the large potentiometer



◀ Ref. Level Selection

◀ Preset Selection. The Shift Key switches selection between preset 1&3 to 2&4.

◀ Master Volume

◀ Mute/ Un-Mute/ Solo for each Channel

iDP™ Remote (cont.)

Description of Functions:-

REF LEVEL keys 1-3

To recall Reference Levels 1-3:

Press relevant key shortly. The key LED indicates activated Reference Level.

To set Reference Level 1-3:

Set level using the large VOLUME potentiometer on the remote. Press and hold relevant Reference level key for approx. 2 seconds. The LED will flash 3 times. The new reference level is now set.

Power up state: Off (volume defined by potentiometer)

PRESET 1/3 AND 2/4 keys

These keys will recall presets 1/3 & 2/4 depending on the position of the SHIFT key.

Power up state: Off (no presets recalled).

SHIFT key

The Shift Key switches selection between preset 1&3 to 2&4.

Preset Bank 1 is presets 1 and 2. Preset bank 2 is presets 3 and 4.

Power up state: Preset Bank 1 selected.

MUTE/UNMUTE - SOLO keys for the channels:

L - C - R - LS- SUB - RS

The LEDs on each key indicates the following states: -

- ⊗ LED ON Speaker on
- ⊗ LED OFF Speaker Mute
- ⊗ LED Flashing Speaker Solo

Mute/Unmute - With a single press on these keys the monitors are muted/un-muted.

Solo Function - Press and hold one of the keys to activate Solo function for the corresponding channel.

If a key is pressed (not held) the original mute status will be recalled.

Power up state: On

VOLUME potentiometer

If no REFERENCE LEVEL keys are activated this control sets the Master volume on all channels in the system.

If a REFERENCE LEVEL keys is activated, this will define the reference level.

When the REFERENCE LEVEL keys are deactivated the Master volume returns to the level defined by the position of the VOLUME potentiometer.

Power up state: Potentiometer setting defines the volume level.

Potentiometer LED function:

When the volume level is defined by the potentiometer, the LED is on. LED goes off when volume is set by devices other than the remote

Power up state: LED on (Potentiometer setting defines volume level).

iDP SOFT™

iDP SOFT™ is a software editor for the Ellipse monitors. All parameters that can be controlled using the display on the System Controller can be controlled using the iDP SOFT™ program.

Installation on PC:

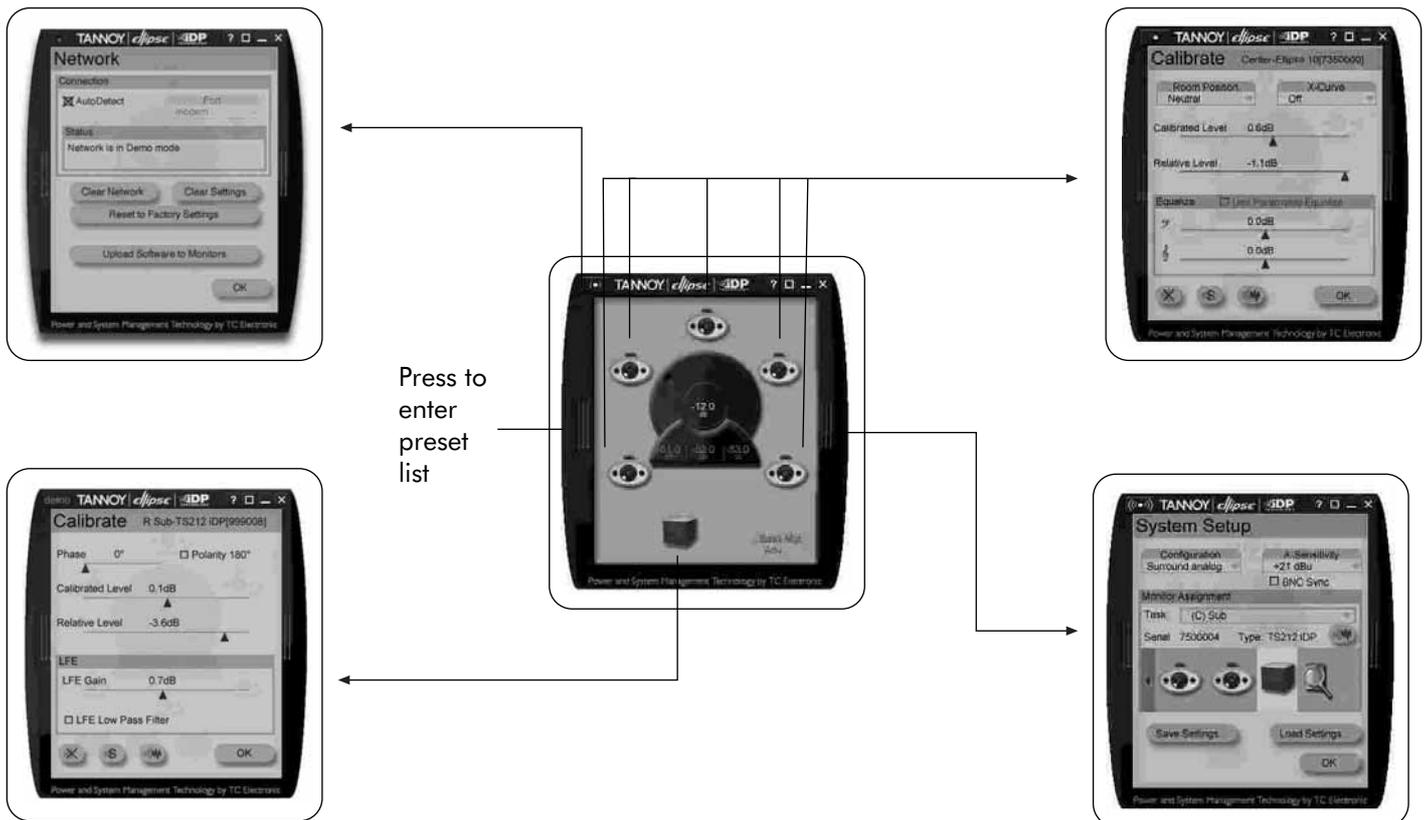
- ⊗ Place the Installation CD in your CD ROM drive and open CD contents.
- ⊗ Press Setup
- ⊗ Follow the instructions.

Installation on Mac:

- ⊗ Enter the Installation CD in your CD ROM drive and open CD contents.
- ⊗ Run the installer.
- ⊗ Follow the instructions.

Minimum requirements

- ⊗ PC Pentium 2 running Windows 95/98, 2000 or a Mac running OS X
- ⊗ 64MB RAM
- ⊗ 800x600 24bit screen resolution
- ⊗ 1 free Serial port or USB. Connect from Serial or USB port to any free TC LINK connection on your Ellipse iDP™ monitors using ONLY the cables described on page cables page (Appendix). A Serial to Cat-5 cable is supplied, if a USB port is used, an optional "USB to Serial Port" converter will be required. The "KeySpan USA 19" has been tested by Tannoy and found appropriate. For further information please visit www.keyspan.com or contact Tannoy customer support.



iDP SOFT™ (cont.)



This is the Main screen from where all other iDP SOFT™ screens are accessed.

When The ((@)) network icon (upper left corner)

Is steady - The computer running the iDP SOFT™ is not correctly connected to Ellipse iDP™ monitors. Check connections, cables and refer to the setup-illustrations on pages 16-24 in this manual.

Is blinking - The computer is correctly connected to your Ellipse iDP™ system.

The ((@)) icon is also used to access the Network screen.

Press ((@)) to access.

VOLUME Control

Use the mouse on the VOLUME control on the middle of the display to adjust the volume

REF LEV. keys

The three keys below the volume control allow access to the 3 user-defined Reference level settings.

To change these Ref. Levels:

- ⊙ Set the volume control to the desired position.
- ⊙ Hold cursor above Ref. Level key and select "Store" from the pop-up icons appearing.

Monitor and Sub icons

Appropriate icons as illustrated above will indicate Ellipse monitors and subs. Press to access specific parameters for the monitors.



This symbol in the Main screen indicates that the selected setup expects a monitor at a certain position but no monitor is found. Check your connections and retry.

Bass Mgt - Bass Management

Indicates the selected Cross-over frequency for Bass Management.

Tools

When placing the cursor on top of a monitor, a few tools will appear:

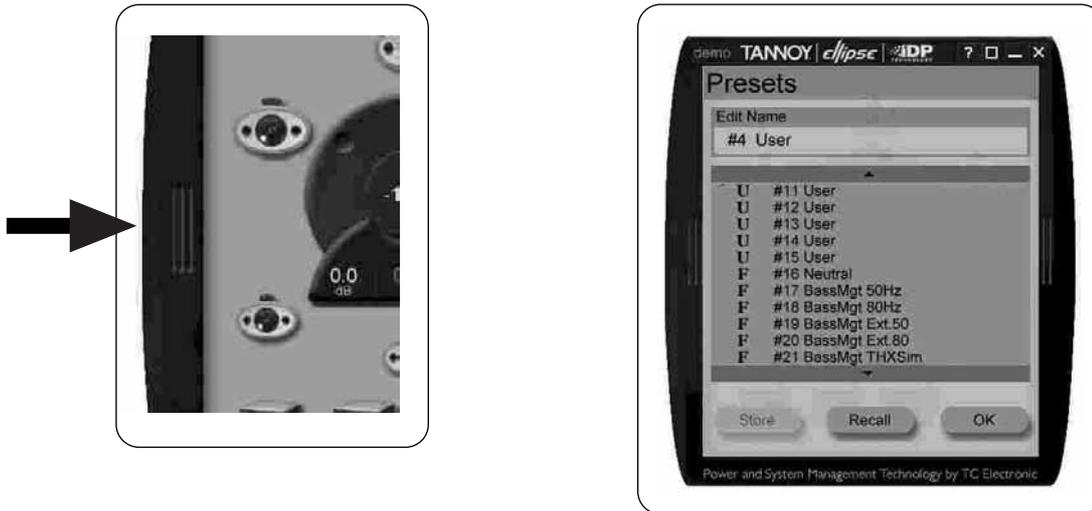
- ⊙ Press this symbol to enter calibration pages →
- ⊙ Press to mute the monitor →
- ⊙ Press to solo the monitor →



iDP SOFT™ (cont.)

Preset List

Clicking on the left side of the display frame accesses the Preset List.



Presets include

- ⊙ Preset Volume
- ⊙ Mute status
- ⊙ Bass Management
- ⊙ X-curve setting
- ⊙ LFE Low Pass
- ⊙ LFE Gain
- ⊙ Parametric EQ (can only be adjusted using the optional PC Installers Package-PC-iP™)

All other settings can be considered “global” and are not stored with presets.

Recall presets

Select preset using your mouse and press Recall.

Store presets

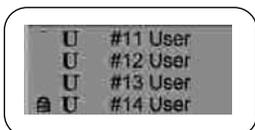
Select User preset locations 1 to 15 and press Store.

Edit Name

Any User preset can be renamed.

Set the cursor in the name field and edit the name.

Locked symbol in Preset List



The “locked symbol” indicates that the preset has been locked in the PC-iP™ Installers Software. A locked preset cannot be unlocked using iDP SOFT™, - this is only possible with PC-iP™.

OK - Press OK to exit window.

iDP SOFT™ (cont.)

Network



Accessing the Network Screen

Press the (((Ⓢ))) icon in the Main screen to access the Network facilities. In this screen various global network settings are handled.

Press **<AutoDetect>** to scan your COM ports. If an Ellipse iDP™ System is connected to any port it will be recognized. Note that the AutoDetect function will not be executed until **<OK>** is pressed.

- Ⓢ **<Port>**
Manual select of Serial/COM port.
- Ⓢ **<Status>**
Indicates the status when entering the Network screen.
- Ⓢ **<Clear Network>** - Clear Setup for entire network
Select this reset procedure to clear all tasks and setup settings.
- Ⓢ **<Clear Settings>** - Clear Monitor Settings
All global and local parameters in connected monitors are reset. Preset and network settings are not affected.
- Ⓢ **<Reset to Factory Settings>** - Reset All Settings
A "factory" reset procedure that deletes all global and local parameter settings as well as preset and network settings.

<Upload Software to Monitors>

Software updates for the Ellipse iDP™ Monitors comes as (.syx) files

There are various files for monitors and subs.

- Ⓢ Save the .syx - file to a location on your hard drive prior to the uploading the file.
- Ⓢ Press **Upload Software to Monitors**
- Ⓢ Follow the onscreen instructions

iDP SOFT™ (cont.)

During Software upload various messages could be displayed:

Example:

In a 5.1 iDP™ setup you are uploading monitor software to the entire system. As there are separate software files for monitors and subs the following message should appear.

“5 Ellipse monitors updated successfully”

This means the Ellipse monitors are updated but no software has been accepted by the connected sub. If a monitor has lost connection during transfer it will not be counted but the software upload continues.

If the message: “Failed to update Ellipse monitors” – is displayed, some of the monitors have reported an error during software upload. This could be caused by communication errors. Please retry.

<OK>

Press to exit screen and execute AutoDetect command if marked.

System Setup



<Configuration>

Select your current setup.

<Analog Gain>

Range: +9dBu, +15dBu, +21dBu or +27dBu

Set to match analog Input gain to match the signal fed to the optional Analog Input card.

<BNC Sync>

BNC Sync On:

The monitor attempts to lock on the World Clock BNC.

Monitor Assignment

Task

- ⊗ Press monitor symbol to activate pink noise test-tone.
- ⊗ Then select task for the monitor now playing the noise. Serial number and type will be indicated.



A monitor marked with a question mark indicates that an “unknown” monitor has been detected. (This icon is darker in colour than the previously mentioned ‘monitor not found’)



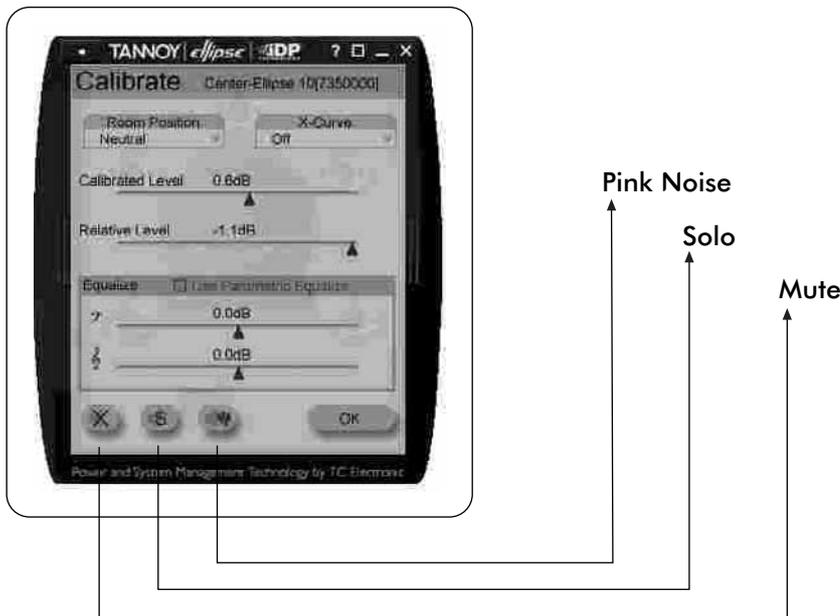
Scan System

Press the magnifying-glass to scan the entire system for connected units.

Save Settings - All settings except “preset settings” are saved to a back-up file.

Load Settings - Press and browse to select file to load. Follow the instructions.

Calibrate - Main Monitors



Parameters and settings for the Main monitors are controlled in this screen
 The screen is accessed via the Main Screen by holding the cursor above the desired monitor and selecting the hammer icon.

Room position

Range: Neutral, Wall, Corner, Console, C. Wall or C. Corn
 Select according to the actual position of the monitor.

X Curve

Range: Off, X-Curve 1 or X-Curve-2
 Two modifications of X-222 curve are available.
 See page 51.

iDP SOFT™ (cont.)

Calibrated Level

Level calibration of the selected monitor.

Relative Level

Preset volume for the selected monitor relative to the calibrated and global volume.

Use Parametric EQ

This will be marked if the Parametric EQ is activated via the PC-iP™ program. Bass and Treble settings will be disabled.

Bass/Treble

Range: -6dB to +6dB. Bass and Treble adjustment for the selected monitor.

The Bass/Treble functions are not available when the Parametric EQ is activated using the PC-iP™ program.



Mute

Press to mute the selected monitor.



Solo

Press to solo the selected monitor.



Pink Noise

Press to generate Pink Noise in the selected monitor.

Calibrate – Ellipse TS212 iDP™ Subwoofer



Parameters and settings for the Subwoofers is controlled via this screen.

The screen is accessed from the Main Screen by holding the cursor above the desired Sub and selecting the hammer icon.

iDP SOFT™ (cont.)

Phase

Range: 0-180°

To time-compensate if the Sub cannot be placed according to the ITU 775 recommendations. There are individual Phase settings for each of the Bass Management Cross-over frequencies. Once set, these are stored as Global settings.

Polarity

Range: 0 or 180 deg.

Mark to activate.

Calibrated Level

Level calibration of the selected monitor.

Relative Level

Preset volume for the selected monitor relative to the calibrated and global volume.

LFE Gain

Range: 0 to 14dB

With this parameter you can boost the gain of the LFE channel.

LFE Low Pass Filter

Mark to activate.



Mute

Press to mute the selected monitor.



Solo

Press to solo the selected monitor.



Pink Noise

Press to generate Pink Noise in the selected monitor.

Chained monitors

If several monitors are chained on the same task (e.g. LSur-LSChain) a dropdown menu will appear as shown below. To calibrate a chained monitor simply select from the list.



An indication of Chained monitors will also be shown in the Mainscreen. This symbol indicates that there are two monitors chained on this specific position.



Technical Specifications- Ellipse 8 iDP™

System (Master & Slaves)

System, Ellipse 8 iDP™	3-Way Semi-Active Near Field Monitor
Frequency Response	40Hz – 50kHz (+/- 1.5dB)
Max. SPL (@ 1m)	114dB (continuous)
Max. SPL (pair @ mix position)	118dB (continuous)
Dispersion (-6dB)	90 degrees
Crossover Frequency	1.7kHz(DSP Generated) & 16kHz (Passive)
Drive units	200mm (8") Tannoy Dual Concentric™ 25mm (1") WideBand™ SuperTweeter™
Cabinet Volume/LF Alignment	18 Litres/Bass Reflex
Dimensions (H x W x D)	373mm x 460mm x 361mm (14 ⁵ / ₈ " x 18 ¹ / ₈ " x 14 ¹ / ₈ "
Cabinet Construction	Laminated birch/MDF baffle with grey suede paint finish (Black on SuperTweeter™) Black anodized aluminum back plate. Detachable neoprene base (Swivel bracket accessory available)
Total weight	14 kg (30.8lbs)

Electronic System

Mains Voltage	100 to 240Vac, 50 – 60Hz (auto – select)
Power Consumption	45W @ 1/8 Full Power (IEC 6065)
Amplifier	Woofer – Separate 200 PWM amp Tweeter & SuperTweeter - 200 PWM amp

System Sample Rates:

Internal	96 kHz (except when slaved to digital input or World clock Input)
External	96, 88.2, 64, 48, 44.1 or 32 kHz (optional 192kHz)

Digital Section (Master only):

I/O connectors	XLR (2 channels AES/EBU in). 3 x RJ45 proprietary TC LINK
Formats	AES\EBU (24 bit)
World Clock Input	BNC, 75Ω , 0.6 to 10 Vpp
Display	2 x 16 character dot matrix
Operation	Menu system / four buttons

Analogue Section (Master only):

Input connectors	XLR balanced (pin 2+, pin 3-)
Impedance	10/3 k (Balanced/unbalanced)
Selectable Full Scale Input level	+9, +15, +21, +27 dBu
Dynamic Range	> 113 dB typ. (unweighted), BW: 20-20kHz
THD+N	< -105 dB typ. @ 1 kHz, -3 dBFS
Cross-talk	< -120 dB, 20 Hz to 20 kHz
A to D Conversion	24 bit (Dual bit delta sigma sampling at 4.1/5.6/6.1/6.1MHz)

Slaves Only:

I/O connector's	2-x RJ45 proprietary TC LINK
-----------------	------------------------------

The typical listening distance for **Ellipse 8 iDP™** is 1.2-2m / 4-7ft

The typical room size for **Ellipse 8 iDP™** is 50-100 m³ / 1600-3500 ft³

Technical Specifications- Ellipse 10 iDP™

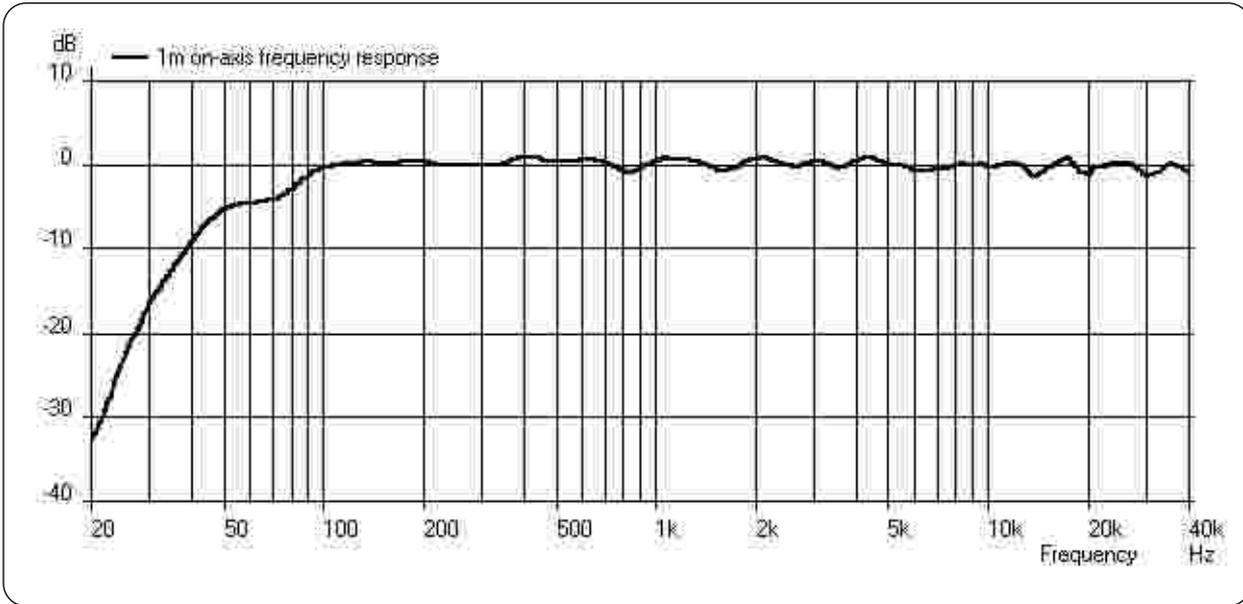
System (Master & Slaves)	3-Way Active Near Field Monitor
System, Ellipse 10 iDP™	33Hz – 50kHz (+/- 1.5dB)
Frequency Response	116dB (continuous)
Max. SPL (@ 1m)	122dB (continuous)
Max. SPL (pair @ mix position)	90 degrees
Dispersion (-6dB)	1.4kHz & 21kHz (DSP Generated)
Crossover Frequency	254mm (10") Tannoy Dual Concentric™
Drive units	25mm (1") WideBand™ SuperTweeter™
Cabinet Volume/LF Alignment	30 Litres/Bass Reflex
Dimensions (H x W x D)	423mm x 540mm x 391mm (16 ⁵ / ₈ " x 21 ¹ / ₄ " x 15 ³ / ₈ ")
Cabinet Construction	Laminated birch/MDF baffle with grey suede paint finish (Black on SuperTweeter™) Black anodized aluminum back plate. Detachable neoprene base (Swivel bracket accessory available)
Total weight	18.5 kg (40.7lbs)
Electronic System	
Mains Voltage	100 to 240Vac, 50 – 60Hz (auto – select)
Power Consumption	45W @ 1/8 Full Power
Amplifier	Woofer – Separate 200 PWM amp Tweeter - Separate 200 PWM amp SuperTweeter - Separate 200 PWM amp
System Sample Rates:	
Internal	96 kHz (except when slaved to digital input or World clock Input)
External	96, 88.2, 64, 48, 44.1 or 32 kHz (optional 192kHz)
Digital Section (Master only):	
I/O connectors	XLR (2 channels AES/EBU in). 3 x RJ45 proprietary TC LINK
Formats	AES\EBU (24 bit)
World Clock Input	BNC, 75Ω, 0.6 to 10 Vpp
Display	2 x 16 character dot matrix
Operation	Menu system / four buttons
Analogue Section (Master only):	
Input connectors	XLR balanced (pin 2+, pin 3-)
Impedance	10/3 k (Balanced/unbalanced)
Selectable Full Scale Input level	+9, +15, +21, +27 dBu
Dynamic Range	> 113 dB typ. (unweighted), BW: 20-20kHz
THD+N	< -105 dB typ. @ 1 kHz, -3 dBFS
Cross-talk	< -120 dB, 20 Hz to 20 kHz
A to D Conversion	24 bit (Dual bit delta sigma sampling at 4.1/5.6/6.1/6.1 MHz)
Slaves Only:	
I/O connectors	2 x RJ45 proprietary TC LINK

The typical listening distance for **Ellipse 10 iDP™** is 1.5-3m / 5-10.2ft
 The typical room size for **Ellipse 10 iDP™** is 80-130 m³ / 2800-4600 ft³

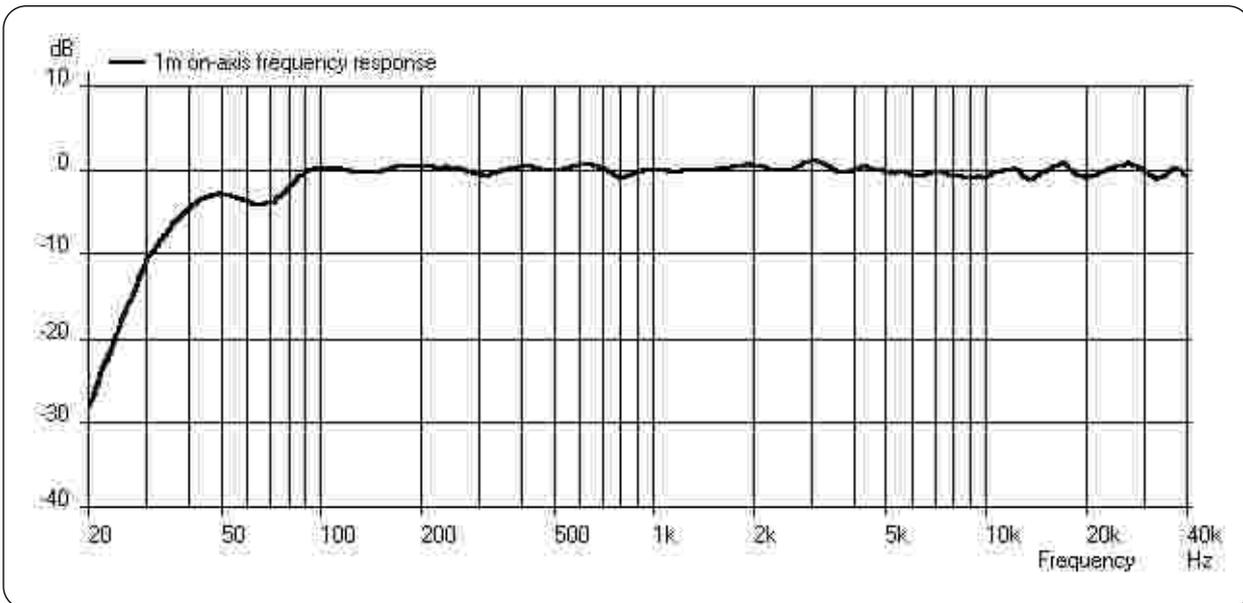
Technical Specifications - Ellipse TS212 iDP™ Subwoofer & iDP™ Remote

System	Active Subwoofer
System, Ellipse TS212 iDP™	25Hz – 150Hz (+/- 3dB)
Frequency Response	124dB (continuous)
Max. SPL (@ 1m)	Set in Bass Management (DSP Generated)
Crossover Frequency	2 x 300mm (12") Aluminum Cone
Drive units	45 Litres/Infinite baffle
Cabinet Volume/LF Alignment	520mm x 471mm x 497mm (20 ¹ / ₂ " x 18 ⁵ / ₈ " x 19 ⁵ / ₈ ")
Dimensions (H x W x D)	Grey suede paint finish on top with silver insert.
Cabinet Construction	Black Fabric on sides MDF Black anodized aluminum back plate.
Total weight	51kg (112.2lbs)
Electronic System	
Mains Voltage	100 to 240Vac, 50 – 60Hz (auto – select)
Power Consumption	
Amplifier	1500 W PWM amp
System Sample Rates:	
Internal	96 kHz (except when slaved to digital input or World clock Input)
External	96, 88.2, 64, 48, 44.1 or 32 kHz (optional 192kHz)
Digital Section (Master only):	
I/O connectors	2-x RJ45 proprietary TC LINK
Dynamic Range	> 113 dB typ. (unweighted), BW: 20-20kHz
THD+N	< -105 dB typ. @ 1 kHz, -3 dBFS
Cross-talk	< -120 dB, 20 Hz to 20 kHz
A to D Conversion	24 bit (Dual bit delta sigma sampling at 4.1/5.6/6.1/6.1 MHz)
iDP Remote	
Finish:	Black anodized aluminum and plastic
Dimensions (D x W x H):	120mm x 70mm x 35 mm
Weight:	250g
I/O Connectors:	1 x RJ45 proprietary TC LINK

Performance Data

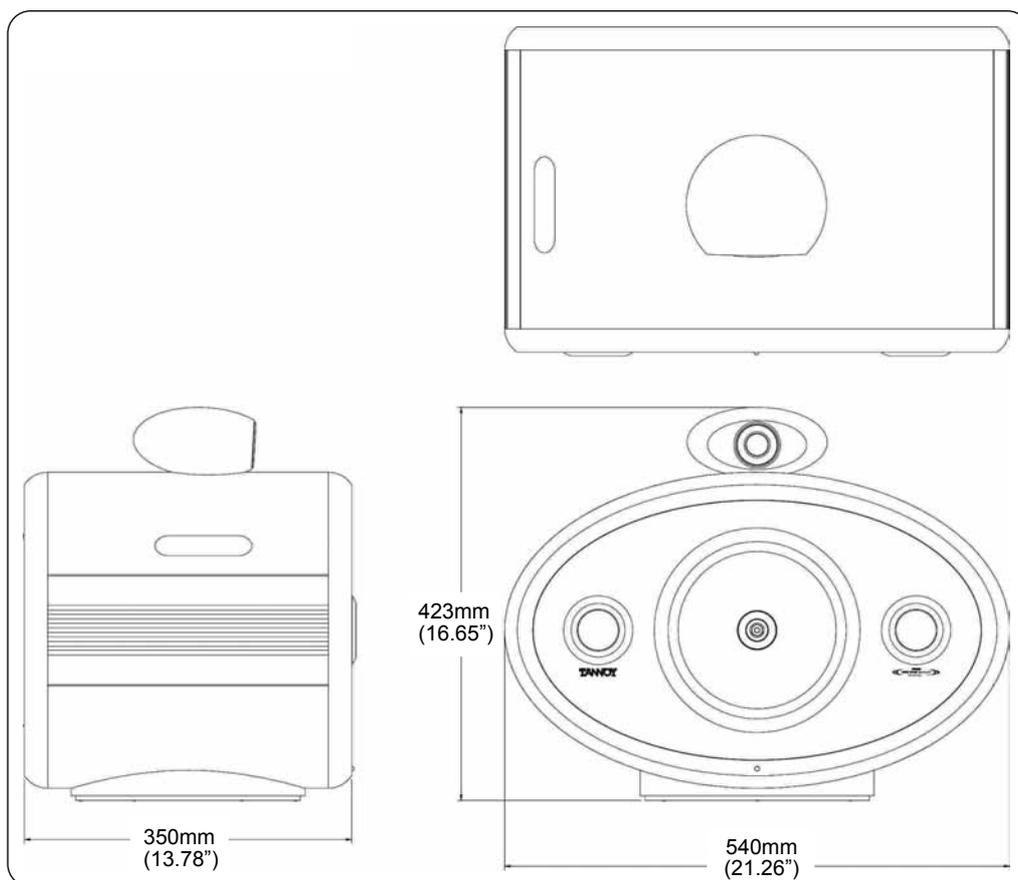
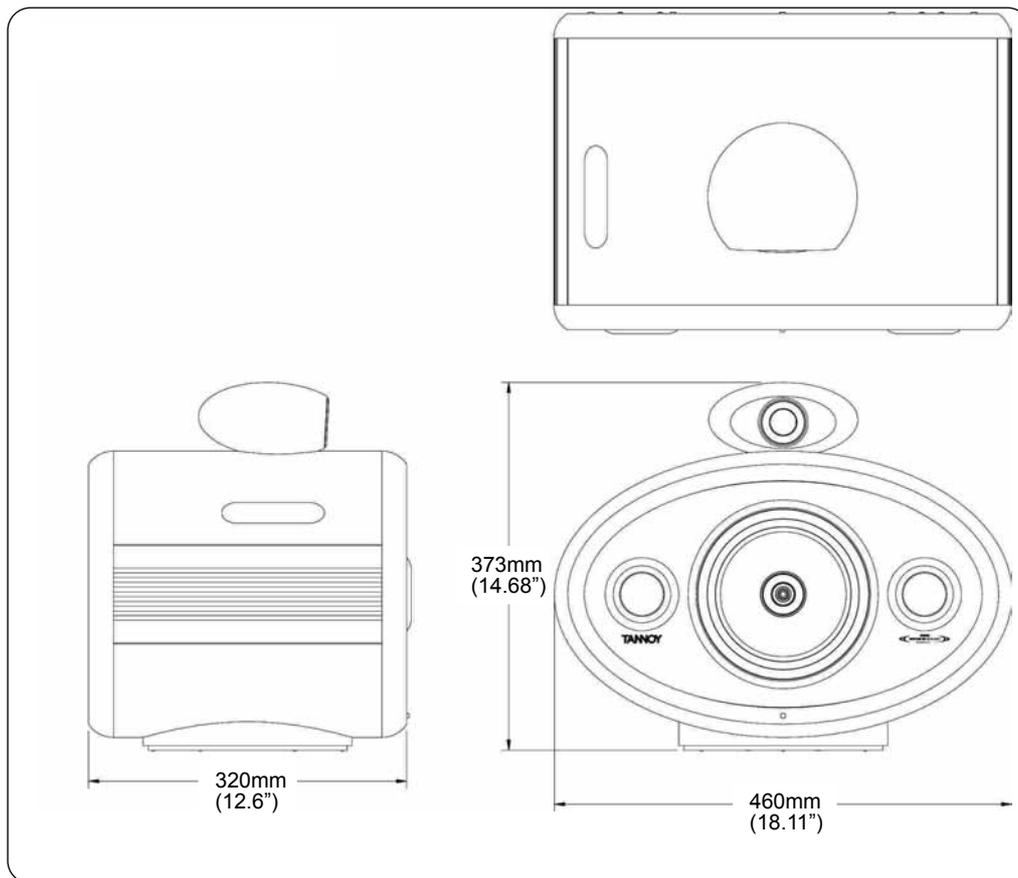


Ellipse 8 iDP™ Anechoic Frequency Response @ 1m

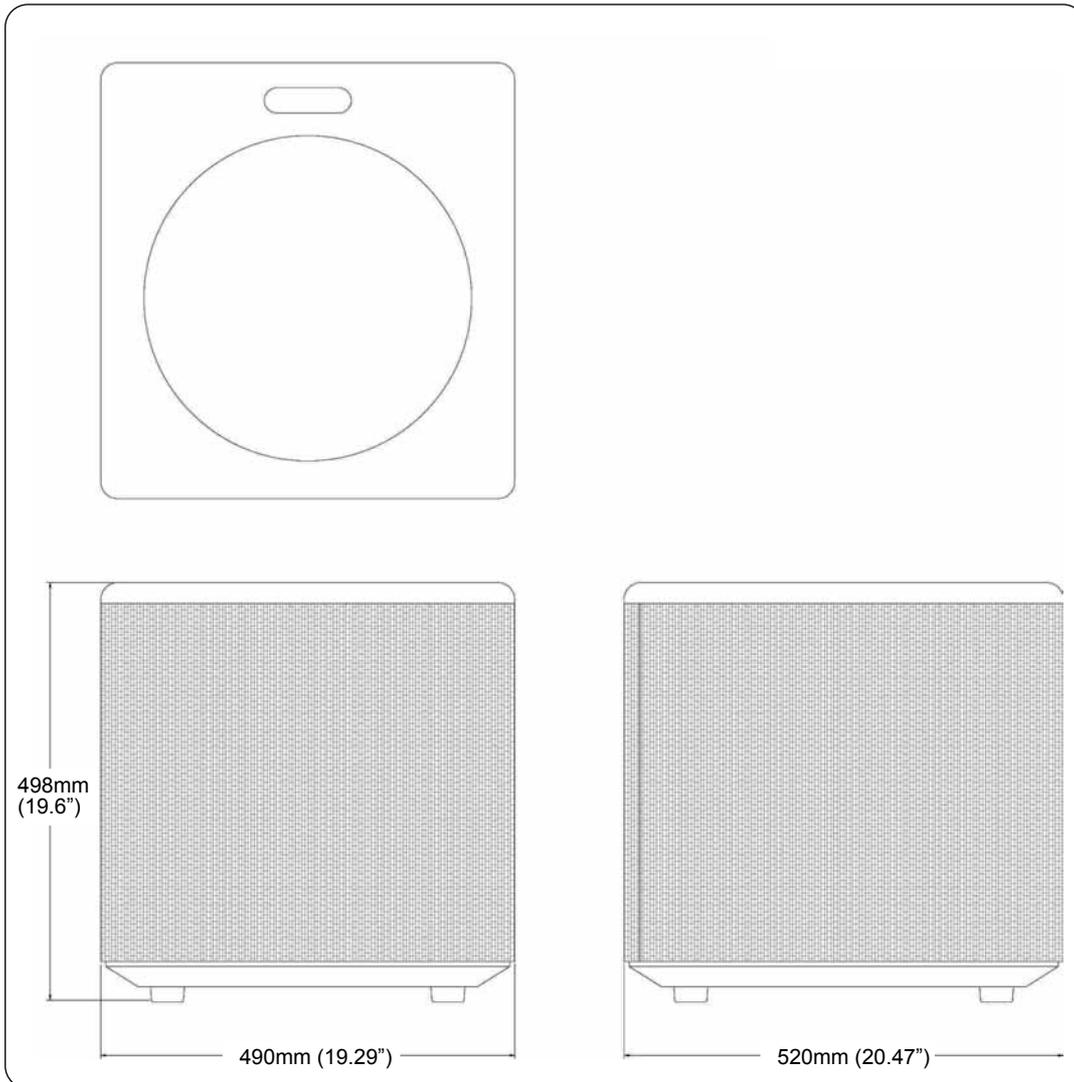


Ellipse 10 iDP™ Anechoic Frequency Response @ 1m

Dimensions Ellipse 8 iDP™ / Ellipse 10 iDP™



Dimensions Ellipse TS212 iDP™ (Grey/Silver)



iDP™ Display Messages

The following is an explanation of Error Messages, etc may appear on a Master monitor Display:-

"!" as "96 kHz Center!"

The "!" indicates that the monitor is not connected to the network. The volume is then automatically set to -50 dB for the monitor not recognized in the network.

"+" as "96 kHz L Front+":

The "+" indicates that the monitor you are looking at is the System Controller.

>> A-Input Lo <<

This message is displayed in analog setups only and indicates that the Input level has been detected to be between -60dB and -20dB for a period longer than 3 minutes. This is an indication to increase the Analog Input Gain.

Analog Input gain range:

+9dBu, +15dBu, +21dBu or 27 dBu.

>> A-Input Hi <<

This message is displayed in analog setups only and indicates that an Input level near 0dB is detected. (peaks @ 2 sec. Above -1 dB). This is a warning and you should turn down the Analog input gain

Analog Input gain range:

+9dBu, +15dBu, +21dBu or 27 dBu.

>> PSU error <<

Displayed if the power supplies fails. The power will be turned off and the monitor will operate. Contact TANNNOY Service Department.

<Locked>

Displayed when a parameter is locked by the PC-iP™ installer software and cannot be changed.

Parameter lock can only be unlocked with the PC-iP™ software.

Standby

Displayed when no Input signal has been detected for the time specified in the **Utility Menu**. below -65 dB. The Amplifier is turned off. Standby mode is released as soon a signal level above -65dB has been detected.

>> Power save <<

Displayed when no signal has been detected on all monitors on the network for the time specified in the **Utility Menu**.

Power is turned off. Exit this mode by pressing any key on system controller or adjusting volume from the remote.

System Delays

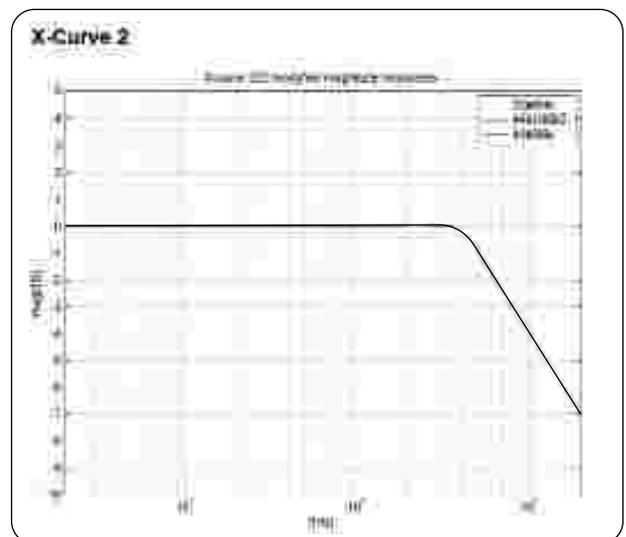
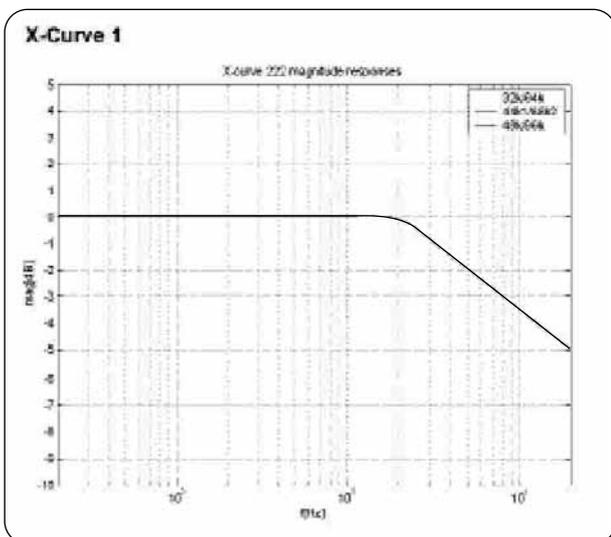
Sample Rate		Digital Input			Analog Input*		
AES or WC in kHz	Converter kHz	Samples @ input Rate	m/seconds	cm	Samples @ Converter Rate	m/seconds	cm
32.00	64.00	93.00	2.91	100	73.00	1.14	39
44.10	88.20	68.00	1.54	53	73.00	0.83	28
48.00	96.00	40.00	0.83	29	73.00	0.76	26
64.00	64.00	34.00	0.53	18	73.00	1.14	39
88.20	88.20	34.00	0.39	13	73.00	0.83	28
96.00	96.00	34.00	0.35	12	73.00	0.76	26

* In Analog Input mode without WC Input selected, the system runs on the Master monitor's own 96kHz clock.

X – Curves Explained

For small rooms, defined as less than 5300 cubic feet or 150 cubic meters, ANSI/SMPTE 222M calls for a modification of the X-curve with flat natural response to 2kHz and then a 1.5dB per octave roll off above 2 kHz. This curve is useful when mixing in a small room and playing back in a large room.

Another variation on the curve is to begin the high-end roll off at 4 kHz and roll off 3dB per octave instead of 1.5 per octave.



Preset #	Display Name	L	C	R	Ls	Rs	SUB	LFE	Bass M. X -over	X-Curve 1	X-Curve 2	
1 thru 15	Empty or User Preset	Presets 1 - 15 are "empty" until you choose to store a custom preset; after which it will display "User Preset #"										
		Preset Level (dB)										
	Factory Presets	Typical applications										
16	Neutral	0	0	0	0	0	0	0dB Gain	Off	Off	Off	
17	BassMgt. 50Hz	Music, video and post for domestic (Not Cinema) use - Stereo, 5.1, 5.3 and 6.1	0	0	0	0	0	0dB Gain	50Hz	Off	Off	
18	BassMgt. 80Hz	Music, video and post for domestic (Not Cinema) use - Stereo, 5.1, 5.3 and 6.1	0	0	0	0	0	0dB Gain	80Hz	Off	Off	
19	BassMgt. 95Hz	Music, video and post for domestic (Not Cinema) use - Stereo, 5.1, 5.3 and 6.1	0	0	0	0	0	0dB Gain	95Hz	Off	Off	
20	BassMgt. 110Hz	Music, video and post for domestic (Not Cinema) use - Stereo, 5.1, 5.3 and 6.1	0	0	0	0	0	0dB Gain	110Hz	Off	Off	
21	BassMgt. 115Hz	Music, video and post for domestic (Not Cinema) use - Stereo, 5.1, 5.3 and 6.1	0	0	0	0	0	0dB Gain	115Hz	Off	Off	
22	BassMgt. 120Hz	Music, video and post for domestic (Not Cinema) use - Stereo, 5.1, 5.3 and 6.1	0	0	0	0	0	0dB Gain	120Hz	Off	Off	
23	Cinema Flat	Mixing for Cinema without compensation for X-curve. 5.1	0	0	-3	0	0	0dB Gain	Off	Off	Off	
24	Cine X-curve	Mixing for Cinema in a small room - compensates for X-curve. 5.1	0	0	-3	0	0	0dB Gain	Off	On	Off	
25	Cine X-curve2	Mixing for Cinema in a small room - compensates for modified X-curve. 5.1	0	0	-3	0	0	0dB Gain	Off	Off	On	
26	Cinema X+50Hz	Mixing for Cinema with small room X-curve 0 compensation and bass Management.	0	-3	-3	0	0	0dB Gain	50Hz	On	Off	
27	Cinema X+80Hz	Mixing for Cinema with small room X-curve compensation and bass Management.	0	-3	-3	0	0	0dB Gain	80Hz	On	Off	
28	CinemaX+120Hz	Mixing for Cinema with small room X-curve compensation and bass Management.	0	-3	-3	0	0	0dB Gain	120Hz	On	Off	
29	Cinema 80Hz	Mixing for Cinema with Bass management but without compensation for X-curve	0	-3	-3	0	0	0dB Gain	80Hz	On	Off	
30	Cinema 120Hz	Mixing for Cinema with Bass management but without compensation for X-curve	0	-3	-3	0	0	0dB Gain	120Hz	Off	Off	
31	OB Van 120Hz	OB vans and very small rooms where rear-channels are close to sweetspot	0	-2	-2	0	0	0dB Gain	120Hz	Off	Off	
32	Neutral	All parameters neutral - a good starting point	0	0	0	0	0	0dB Gain	Off	Off	Off	

X-curve #1 - ANSI / SMPTE222M (1.5dB roll off per oct. from 2kHz)

X-curve #2 - ANSI / SMPTE222M Mod. (3dB roll off per oct. from 4kHz)

LFE Gain - Please note that in general the LFE channel should be mixed with +10dB headroom. If you are not able to boost your LFE monitor output from your console, +10dB gain can be added on your Ellipse TS212 iDP™ Subwoofer input. Most encoder/decoder formats take the LFE boost into account, meaning that you should leave the Ellipse TS212 iDP™ Subwoofer LFE gain at 0dB when playing back a DTS™ or DOLBY™ encoded material on your Ellipse iDP™ system.

Cables

Below is a guide to the cables used in iDP™ set-up's.

TC LINK Standard Cat-5 cables

Maximum Cable Length : 15 metres.

Cable type : Shielded Ethernet Cable Category 5.

Connector type : RJ45

This connection carries Digital audio (24 bit) and network control information.

P1 (pin No.)	➔	P2(pin No.)	Colour
1	➔	1	Brown
2	➔	2	White/Brown
3	➔	3	Green
4	➔	4	White/Blue
5	➔	5	Blue
6	➔	6	White/Green
7	➔	7	Orange
8	➔	8	White/Orange

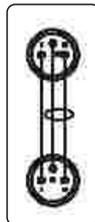


AES/EBU Standard cables

Maximum Cable Length: 100 m

Cable type: 110 Ohm

Connector type: XLR

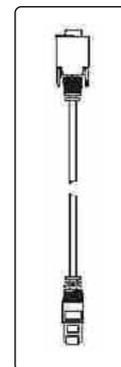


Pin1	➔	Pin1	➔	Ground
Pin2	➔	Pin2	➔	Hot (+)
Pin3	➔	Pin3	➔	Cold (-)

Serial to Cat-5 cable

This cable is included with the iDP SOFT™ and PC-iP™.

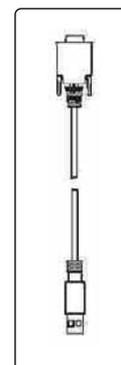
This is a proprietary cable with integral Electronics. For use with iDP™ Systems only.



USB to COM 9pin

This cable is NOT included with iDP SOFT™ or PC-iP™.

Use this type of converter along with the Cat5 to Serial cable described above if your computer has a USB connection only and no serial port.



Declaration Of Conformity



The following apparatus is/are manufactured in the United Kingdom by Tannoy Ltd of Rosehall Industrial Estate, Coatbridge, Scotland, ML5 4TF and TC Electronic A/S, Sindalsvej 34, 8240 Risskov, Denmark.

The following equipment is marked with the CE label and conform(s) to the protection requirements of the European Electromagnetic Compatibility Standards and Directives. The apparatus is designed and constructed such that electromagnetic disturbances generated do not exceed levels allowing radio and telecommunications equipment and other apparatus to operate as intended, and, the apparatus has an adequate level of intrinsic immunity to electromagnetic disturbance to enable operation as specified and intended.

Details of the Apparatus:

Ellipse 8 iDP™
Ellipse 10 iDP™
Ellipse TS212 iDP™
iDP™ Remote

The equipment listed above is covered by this certificate and marked with the CE-label conforms with following standards:

EN 60065 (IEC 60065)	Safety requirements for mains operated electronic and related apparatus for household and similar general use
EN 55103-1	Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use. Part 1: Emission.
EN 55103-2	Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use. Part 2: Immunity.

With reference to regulations in following directives:
73/23/EEC, 89/336/EEC

Signed:



Position:

Engineering Director – Professional Products
Tannoy Limited

Date:

23/10/2003

For Tannoy Ltd

Warranty

No maintenance of the Ellipse Monitor is necessary.

All components are guaranteed for a period of one year from the date of manufacture, subject to the absence of, or evidence of, misuse, overload or accidental damage.

For further information please contact your dealer or the distributor in your country.

If you cannot locate your distributor please contact:

Customer Services, Tannoy Ltd, Coatbridge, Strathclyde ML5 4TF
T: +44 (0) 1236 420199 F: +44 (0) 1236 428230

DO NOT SHIP ANY PRODUCT TO TANNOY WITHOUT PREVIOUS AUTHORISATION

This warranty in no way affects your statutory rights.

Our policy commits us to incorporating improvements to our products through continuous research and development. Please confirm current specifications for critical applications with your supplier.

ellipse MONITOR SYSTEMS

Tannoy Loudspeakers are designed and manufactured in Great Britain by:

Tannoy Ltd, Rosehall Industrial Estate, Coatbridge,
North Lanarkshire, ML5 4TF, SCOTLAND
Telephone: +44 (0)1236 420199 Fax: +44 (0)1236 428230

Tannoy North America Inc, Suite 1. 335 Gage Avenue, Kitchener,
Ontario, CANADA, N2M 5E1
Telephone: (519) 745 1158 Fax: (519) 745 2364

Check periodically for the latest manual revision that will always be available for download from www.tannoy.com. The revision number of this manual is located below.

Issue 1 Part No. 6481 0402