# **LJANOY**PS350B

### ACTIVE SERIES SUBWOOFER

# Operator Manual

# Feature Alert!

You have purchased a unique subwoofer featuring True Bass Management.

This is a special feature of the PS 350B that you need to be familiar with **before** installation. It is **vital** that you read and understand this Operator Manual and the available options before proceeding.

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### Introduction

Congratulations on the purchase of your new subwoofer. Both the PS350 and PS350B offer extraordinary features and flexibility. The PS350 is primarily designed for home use, while the PS350B is designed for professional use through its balanced XLR inputs and outputs. Of course, the PS350B can be used in a domestic environment, while the PS350 can be used professionally if desired. Both models are advanced active (powered) designs and offer the same excellent acoustic performance. The PS350 and PS350B are also fully compatible with traditional stereo and modern multi-channel audio formats, and allows for simple upgrading from two channels to multi-channel format at the convenience of the user.

The PS350B offers remote bass management, a unique feature that allows the user to remotely select between monitoring in a full range stereo or 5.1 multi-channel format, at the flick of a switch. This manual will help you set up your loudspeaker system for this feature if appropriate to your application.

Please take the time to read through the manual to understand the features offered by your new subwoofer. We understand your desire to get the system up and running as soon as possible. However, a little time dedicated to reading and understanding this manual now will save you time in the long run, and ensure that you obtain the best possible performance from your new subwoofer.

### **Section 1**

### Stereo Mixing

Since the 1950s, two channel mixing, more affectionately known as stereo, has been a worldwide standard through the eras of both vinyl (analog) and CD (digital) replay formats. Originally conceived to improve the sense of spatial location and ambience of a live recording, the two channel audio format, can only be described as having been a resounding technical and commercial success.

Even as multi-channel audio formats are increasing rapidly in popularity for the home, two channel formats remain a reliable and known reference for industry professionals mixing in these new formats. With the PS350B, the audio professional is able to reference between a true full bandwidth stereo mix, and mixing for the 5.1 format at the flick of a switch.

### Section 2

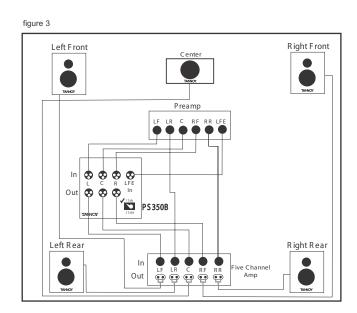
### What is True Bass Management? (PS350B only)

Into todays demanding world of audio, small high quality studio nearfields and satellite speakers have become very popular. Of course, it would be ideal for a speakers bandwidth to be flat from 20 Hz to 20 kHz. Unfortunately, this is a bit unrealistic, especially for these bookshelf-size units. There are design limitations to the low frequency output of a speaker system if it must be small and play loudly. Most of the LF drivers in these speakers are 4" to 8" in size. In real world design, the smaller the LF driver is, the less it can effectively reproduce very low frequencies. The most practical way to compensate for a small speakers low frequency deficiencies, is by the addition of a subwoofer.

True 5.1 Bass Management with the PS350B can be achieved as follows (fig 3), given the availability of LF, C, RF, RR, LR, and LFE discrete outputs from the signal source. Connect the line level (LFE) signal source output to the subwoofer amplifier LFE input. The Left Front, Center, and Right Front signal source outputs should be connected to the LCR inputs on the PS350B respectively. In most cases, the Left Rear and Right Rear signals are connected directly to their respective rear speaker amplifier(s), which are then connected to the appropriate rear speakers. The rear channels audio bandwidth is often reduced through the DSP processor.

The subwoofer LCR line level outputs are then connected to the respective speaker amplifier inputs for Left Front, Center, and Right Front speakers.

The PS350\*s offer Bass Management by summing both the low pass frequencies from the LCR inputs, and the LFE channel from the signal source. The PS350B allows the user to defeat this function by using the LCR remote bypass switch.

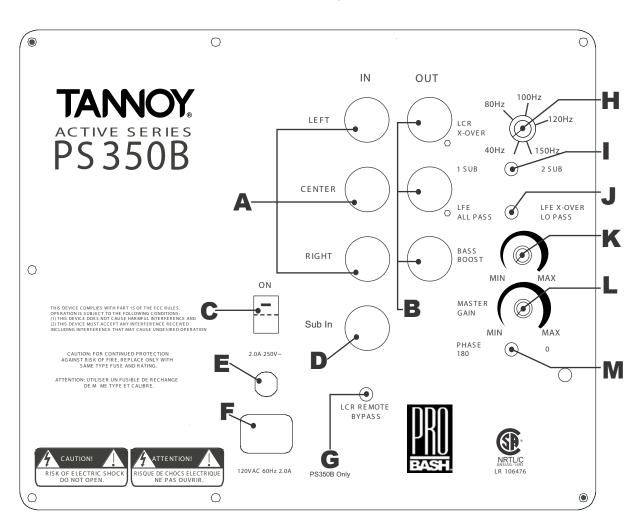


### Unpacking your Subwoofer

After opening the box, check the unit for damage before connecting to the AC supply and note if any damage relates to holes or any crushing of the outer carton. There are no rattles or loose pieces inside the subwoofer system by design, so if you hear anything that sounds inappropriate for a powered subwoofer while unpacking it, stop now, and check the carton for signs of damage. If damage has occurred, contact your freight carrier right away and have them register your damage claim.

### **Section 4**

### Feature Descriptions



### A): Left, Center, Right (LCR) inputs

Both the PS350 and PS350B have LCR inputs. The PS350B is equipped with balanced XLR receptacles wired in the following manner: Pin 1 = Ground, Pin 2 = Positive (+) and Pin 3 = Negative (-). The PS350 incorporates an RCA receptacle and is wired to the following: Tip = Signal and Sleeve = Ground. Note: It is extremely important to read the entire manual since both models have unique features that correspond to their inputs.

### B): Left, Center, Right (LCR) outputs

These outputs have a fixed high pass filter point of 80 Hz at 12 dB per octave. Each corresponds to its opposing input, and they are actively isolated from one another. With The PS350B, the LCR outputs can be made full frequency by deactivating Bass Management, using the LCR Remote By-Pass function (not available with the PS350).

### C): Power Switch

The power switch is of a rocker style with international markings on it indicating when the amplifier is ON or OFF. When the switch is placed in the (-) position the amplifier is ON. When the switch is placed in the (O) position the amplifier is OFF. When the power switch is in the ON position and the power cord is plugged into an AC source, the LED located in the front of the subwoofer will illuminate Green indicating the amplifier is ON. Note: When signal is present the LED will turn from Green to Red indicating the amplifier is on and signal is present at the woofer.

### D): Low Frequency Effect (LFE) input

Industry standards vary by format. Unfortunately, old formats do not match today's format and there is still no industry standard for LFE crossover points. The LFE input on this subwoofer is selectable between a fixed low pass filter point of 120 Hz at a rate of 12 dB per Octave, or an "all pass" mode utilizing the full bandwidth of the amplifier. This gives the optimum flexibility for all LFE program information. The LFE fixed crossover will give added protection to the subwoofer by limiting its bandwidth without compromising the program material, or by adding overlapping filtering, while the "all pass" mode gives a non-filtered input. Note: See LFE Crossover Mode.

### E): Fuse

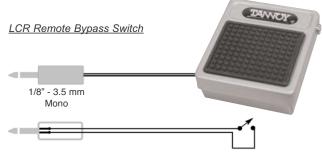
In the unlikely event of an amplifier failure, an AC protection fuse has been incorporated for safety. If the subwoofer does not turn on, unplug the power cord from the AC source. Unscrew the fuse cap and check the fuse. Note: If you are replacing the fuse, it MUST be replaced with the same fuse rating or all safety certifications and warranties will be voided.

### F): AC Power

Make sure the power switch is in the OFF position (O) and the male end of the cord is unplugged from an AC source. Using the AC power cord that is enclosed in the box, insert the female end of the cord into the IEC socket. After the cord is inserted into the IEC socket, plug the male end of the cord into an AC source. Special Note: Make sure the AC source voltage matches the voltage requirements information on the subwoofer amplifier panel, if they do not, <u>STOP</u>, or damage will occur. AC power requirements of the amplifier is 300 Watts.

### G): LCR Remote Bypass - for model PS350B only

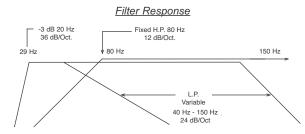
This feature gives you the ability to select Bass Management "in" or "out" by simply moving a switch. For operation, insert the supplied 1/8" (3.5 mm) plug into the appropriate receptacle. By pressing the switch on the end of the cable you will be deactivating the Bass Management. When deactivating the Bass Management, two operations are occurring simultaneously. One, the LCR 80 Hz High Pass filters are by-passed making the outputs full frequency. Two, the LCR signal is removed from the subwoofer signal path. The only signal present at the subwoofer will be from the LFE input. By depressing the switch again, you will reactivate the Bass Management.



For custom remote switches, follow schematic diagram.

### H): LCR Variable Crossover

Adjusts the crossover point for the subwoofer. In part 6.a. of this manual we suggest the option of using the subwoofer's internal high pass filter network. In this system, that high pass filter point is fixed at 12 dB/Octave at 80 Hz. The variable low pass filter has a range of 40 Hz to 150 Hz at a 24 dB/Octave slope, which allows you to adjust the amount of overlap in the operating range of the subwoofer by about half an Octave. As the subwoofer level is adjusted relative to the main speakers, you will find that you need to adjust the low pass filter point to avoid having a bump or hole in the bass response at the 80 Hz crossover point. While this could be thought of as a bass control of sorts, it is really there to help match the performance of the main speakers, and help compensate for the anomalies of the room in which it is placed. We will talk more about these anomalies in the "Placement of the Subwoofer," section 5.



### I): One sub / Two sub switch

This switch only applies to the Center input. When in the "One Sub" mode the signal path is at unity gain. This means the signal level of the Center input has equal gain to the Left and Right inputs. When in the "Two Sub" mode, the Center input gain is reduced by 6 dB. The reason for this feature is to allow for the use of two subwoofers in a 5.1 system. When using two subwoofers in a 5.1 bass management system with the shown system setup (fig 5), it is easy to see why the "One Sub/Two Sub" feature is needed. The left signal is connected to the left sub and the right signal is connected to the right sub, and both subs need the center signal. The problem now, is that a 12 dB gain in energy is coming from the subwoofer. To obtain unity gain through the LCR we must reduce the level of the signal of the Center channel program material. This is obtained by selecting the "Two Sub" switch position. This does not affect each individual subwoofer's mode of operation because there is only Left or Right signal present at each unit respectively.

### J): LFE Crossover Mode Selection Switch

The "all pass" switch position can be used when experimenting with a discrete subwoofer channel arrangement. Careful and thoughtful use of the controls are required to achieve best results.

For most music and film production applications, it is mandatory to run the L.F.E. sub information through an outboard proprietary production DSP unit. Most program material has already been coded to limit the LFE bandwidth from 30 Hz to either 80 Hz or 120 Hz. For this situation, it may be a requirement that the subwoofer being used have a linear frequency response up to 300 Hz. This can be achieved by switching the LFE crossover mode switch to the "all pass" position, which over-rides the LFE fixed "low pass" internal crossover filter. When no outboard DSP processor is mandated or if you are unsure, it is wise to use the internal "low pass" filter for added subwoofer protection. To operate the internal "low pass" crossover frequency feature, move the switch to the "LFE low pass" position.

### K): LFE Boost

This control offers the user the ability to boost the extreme low frequency energy below 63 Hz up to a maximum level of 6 dB in a linear shelf mode. The maximum boost is obtained by turning the adjustment knob fully clockwise. The boost is eliminated once the knob is returned to the full counter-clockwise position. This feature is to enhance extreme low frequencies for maximum effects. As with all equalization, we advise its use in moderation.

### L): Master Level Gain Control

Adjusts the level of the subwoofer without affecting the signal level that goes to your main speaker amplifier. Because the subwoofer has an integral crossover filter, this will also act as a bass shelving control for your complete loudspeaker system. While it is tempting to turn up the subwoofer, it is there to reproduce low frequencies with less effort, and lower distortion than the main speakers can achieve. The most important thing is to maintain a balanced audio spectrum.

### M): Phase switch

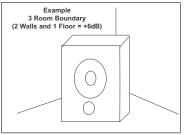
Depending on the distance that your subwoofer is placed from your main speakers, it may be necessary to reverse the phase of the subwoofer. This is achieved by simply moving the switch to the "180 degree" position. In most cases, the main speakers will work best with the subwoofer in the "0 degree" position. In any case, a flip of the switch will allow for quick reference. The switch is in the correct position for your set-up when the low frequency output is greatest at and below the crossover point selected.

### Section 5

### Placement of the Subwoofer

The governing factor in bass response heard in any room will be room modes. In addition, it is important to remember

that a corner position offers the best chance of exciting the most room modes (diagonal, orthogonal and axial), but this also changes the loading on the subwoofer which lifts the bass frequencies up in level. Placing the woofer in



a corner (two walls and a floor) gives you another 3 dB more low frequency energy than the two boundary condition, for a total of 6 dB over the unit in the middle of the floor. When setting things up the first time, you will need to adjust the subwoofer level for various room positions you try to keep the system balance the same. The point of experimenting with subwoofer placement is to get the bass response smooth and even, not just getting lots of low frequency output.

If you're using Tannoy main speakers, you may want to consider experimenting using the closed-cell foam reflex port plugs that were originally supplied in the speaker packaging. This will help tighten up the mid bass (80 Hz+) performance since we don't need the ports to enhance the bass below 80 Hz. This plug is a pressure fit, so it can be removed at a later date if required. Here are some additional tips that will help you get the best during set-up:

- Experiment with the subwoofer features.
- Make sure you're not being impressed by more bass instead of smooth bass.
- Don't rely on a one third Octave RTA (Real Time Analyser) to look for accurate guidance on level adjustment, or for room mode response at any specific position. It doesn't have the time or the frequency capability. The best way to listen is with a slow progression of low frequency notes. Are there drastic variations in the level of notes? If they come out of the signal source at the same level, you can be pretty sure that the problems are room related. If one listening position seems to provide significant variations, try another position several feet away. Because the wavelengths are quite long, it usually takes a change of position equal to a good fraction of the wavelength to hear the difference.
- You also want to strive for a large uniform listening area. It doesn't help to have a point in your listening space be perfect, but have that point be so small that you can't get both ears in it at the same time. Every listening situation will be different and we can't offer any more specific guidance on positioning than experiment and listen to material you trust.
- A subwoofer is an excellent tool for finding new sources of rattles and buzzes in the listening area. Because there is a concentrated low frequency source involved, nearby objects such as wall panels, equipment cover plates, and other objects may rattle. For maximum performance, you will want to track down each rattle or buzz and correct it at the source of the problem.

### **Installation**

With the AC power off, place the subwoofer in, or close to its chosen final position, making sure that there is easy access to the amplifier panel and controls. Plug the subwoofer into the wall outlet, preferably the same outlet, or at least the same circuit as your main speaker amplifier. Connect your signal source outputs to the input connectors of your subwoofer. Here is where there are two choices:

a: (Recommended) Another set of cables can be used to connect the outputs of the subwoofer to the L and R inputs of the main speaker amplifier. Please, don•t use cheap cables to connect the subwoofer. Buy quality components for your audio installations. It will pay off in the final experience. Using this connection method allows use of the subwoofer•s built-in high pass filter network to provide smooth transition of frequencies between the subwoofer and the main speaker system.

b: (Optional) You may choose to allow your main speaker system to operate full bandwidth, in which case you will not require the cables from the subwoofer outputs to the main speaker amplifier inputs. Connect the subwoofer from either the signal source "sub out" or LFE connector,

or from a discrete channel output within the audio system. This method does not require any wiring changes to your current main speaker set-up, but does not use the subwoofers high pass filter network. It may, or may not, offer the best performance characteristics. Some experimentation will be required to achieve optimum results.

Ensure that your left and right channels have been connected correctly through the chosen signal chain. Turn the gain control to minimum. Turn the subwoofer amplifier "On" and look for the green LED to show power present. Note that the unit features an auto on/off circuit. which will turn the subwoofer off if there is no input signal for more than two minutes (indicated by the green LED turning to red). The sub will instantainiously turn on again, (Indicated by the red LED turning green) as soon as an input signal is received. Start your program material and adjust your main speakers to a normal listening level. If you have high passed your main speakers, do not be alarmed that they sound thinner, all the energy below 80 Hz has been taken out of them for use by the subwoofer. Now, adjust the subwoofer gain control until you re satisfied with a suitable level to match the main speakers. If something isn t working at this stage, you can go ahead to the troubleshooting section (section 10), get it running, and then come back to find out how to make it work even better.

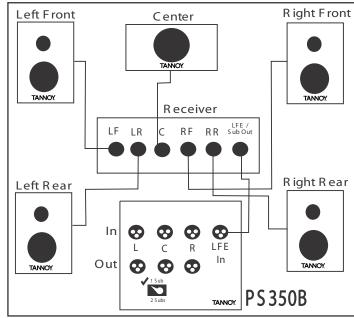
### Section 7

### **Applications**

### a): One PS350/350B with powered receiver

- 1. Connect a cable from the receiver line level "LFE" or "Sub Out" to the LFE input of the PS350B. The LFE input has a fixed low pass crossover of 120 Hz. If a variable crossover is required, use the Left or Right input. You can use the Center input but, make sure the 1 Sub/2 Sub switch is in the 1 Sub position or the signal will be by attenuated by 6 dB. If you decide to use the variable crossover, a good starting point is to between 80 Hz and 100 Hz.
- 2. Phase set to O deg. Note: Refer to Phase Switch (4.M.) for further details.
- 3. Bass boost set to Min. Note: Refer to LFE Boost (4.K.) for further details.
- 4. Set the Sub Level control on the PS350/PS350B to Min initially.

figure 1



# b): One PS350/350B with preamp and 5 channel amp - no bass management

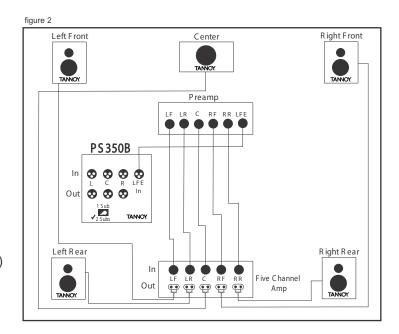
- 1. Connect the preamp line level "LFE" or "Sub Out" to the LFE input of PS350/PS350B. The LFE input has a fixed Low Pass crossover of 120 Hz. If a variable crossover is required, use the Left or Right input. You can use the Center input but, make sure the 1 Sub / 2 Sub switch is in the 1 Sub position or the signal will be alternated by 6 dB. If you decide to use the variable crossover, a good starting point is between 80 Hz and 100 Hz.
- 2. Phase set to 0 deg. Note: Refer to Phase Switch (4.M.) for further details.
- 3. Bass boost set to Min. Note: Refer to LFE Boost (4.K.) for further details.
- 4. Set the Sub Level on the PS350/PS350B to Min initially.

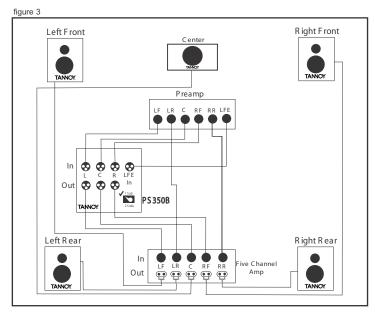
# c): One PS350B with preamp and 5 channel amp - utilizing bass management

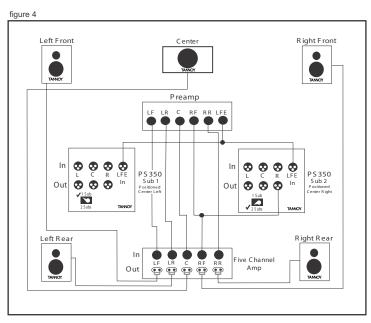
- 1. Connect the Left Front, Center, and Right Front outputs of the preamp to the LCR inputs of the PS350B. The Left Rear and Right Rear outputs of the preamp connect directly to the 5 channel amplifier. The "LFE" or "Sub Out" of the preamp connects to the LFE input of the PS350B. Take the LCR outputs on the PS350B and connect them to their corresponding channels on the 5 channel amplifier. If you decide to use the variable crossover, a good starting point is between 80 Hz and 100 Hz.
- 2. Phase set to 0 deg. Note: Refer to Phase Switch (4.M.) for further details.
- 3. Bass boost set to Min. Note: Refer to LFE Boost (4.K.) for further details.
- 4. Set the Sub Level on the PS350B to Min initially.

# d): Two PS350/350B with preamp and 5 channel amp - no bass management

- 1. Using a "Y" cable, connect the preamp line level "LFE" or "Sub Out" to the LFE inputs of PS350/PS350Bs 1 and 2, paralleling the two inputs together. The LFE input has a fixed Low Pass crossover of 120 Hz. If a variable crossover is required, use the Left or Right input. You can use the Center input but, make sure the 1 Sub / 2 Sub switch is in the 1 Sub position or the signal will be attenuated by 6 dB. If you decide to use the variable crossover, a good starting point is between 80 Hz and 100 Hz.
- 2. Phase set to 0 deg. Note: Refer to Phase Switch (4.M.) for further details.
- 3. Bass boost set to Min. Note: Refer to LFE Boost (4.K.) for further details.
- 4. Set the Sub Level on the PS350/PS350B to Min initially.







# e): Two PS350B•s with preamp and 5 channel amp - utilizing bass management

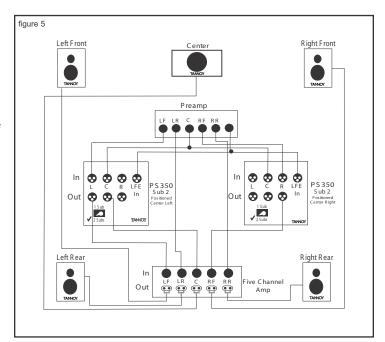
- 1. Connect the Left Front and Center outputs of the preamp to the Left and Center inputs of the PS350B Sub 1. Connect the Right Front and Center outputs of the preamp to the Center and Right inputs of the PS350B Sub 2. Using a "Y" connector, connect the "LFE" or "Sub Out" of the preamp to the LFE inputs of both PS350Bs. Connect the Left and Center outputs on PS350B Sub 1, to their corresponding channels on the 5 channel amplifier. Take the Right output of Sub 2 and connect it to the corresponding channel in the 5 channels amp.
- 2. Set the LCR Variable Crossover. A good starting point for the crossover is between 80 Hz and 100 Hz. Note: Refer to LCR Variable Crossover (4.H.) for further details.
- 3. Phase set to 0 deg. *Note:* Refer to Phase Switch (4.M.) for further details.
- 4. Bass boost set to Min. Note: Refer to LF Boost (4.K.) for further details.
- 5. Place the 1 Sub/2 Sub switch in the •2 SubŽposition **on only one** of the two PS350Bs.
- 6. Set the Sub Level on the PS350B to Min initially.

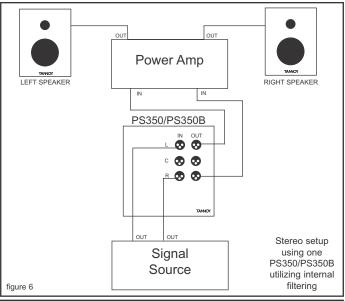
# f): Stereo setup with one PS350/PS350B utilizing internal filtering

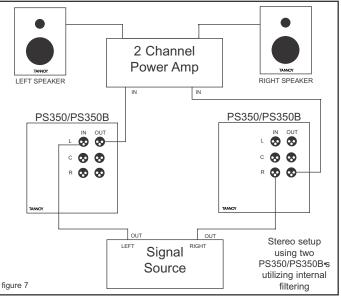
- 1. Connect a cable from the signal source left output to the PS350/PS350B Left input. Connect the Left subwoofer output to the power amplifier left input. Repeat for the right channel.
- 2. Phase set to 0 deg. Note: Refer to Phase Switch (4.M.) for further details.
- 3. Bass boost to Min. Note: Refer to LFE Boost (4.K.) for further details.
- 4. Set the Sub Level control on the PS350/PS350B to Min initially.

# g): Stereo Setup using two PS350/PS350Bs utilizing internal filtering.

- 1. Connect a cable from the Signal Source Left output to the Left input of the left side subwoofer. Connect the Left subwoofer output to the left input of the power amplifier. Repeat for right channel.
- 2. Phase set to 0 deg. Note: Refer to Phase Switch (4.M.) for further details.
- 3. Bass boost to Min. Note: Refer to LFE Boost (4.K.) for further details.
- 4. Set the Sub Level control on the PS350/PS350B to Min initially.







### **System Protection**

Because accidents happen, this subwoofer system is equipped with a protection limiter to prevent the amplifier from operating in a sustained clipping condition, or at a level that may cause damage to the woofer due to over-excursion. Because the subwoofer amplifier has a limiter, there isn't a clip light on the amplifier to indicate when it is in distress. This protection system does allow the woofer to deliver its rated peak SPL (Sound Pressure Level) of 114 dB without compromise. If a bass drum, or bass guitar doesn't get any louder when you turn it up, and is starting to sound squashed or flat, then you are probably operating into the limiter. If you are finding that you are operating into the limiter on a regular basis, you need to consider two or more subwoofers within the system.

The subwoofer is a compact device, which allows the unit to be easily placed where it can provide optimum performance. As part of the placement process, the performance can be fine tuned by adjusting the user controls provided. You only have to do this the first time you set your system up. Once the balance is set between the subwoofer and the main speakers, the installation is complete.

The general rule for placement is between the left and right channels in a two channel system, or under the center channel in a 5.1 or other surround system.

### Section 9

### Care of the Subwoofer

The subwoofer is finished with a vinyl covering that resists most liquids, and can be cleaned with a damp cloth, or a mild cleaner like Windex<sub>TM</sub>. Avoid wetting the bass unit cone material during any cleaning effort. It would be preferable that if you try to keep friends and neighbors from placing beverages on the subwoofer.

Do not place the unit near a heater or forced air outlet, as this may impair the ability of the internal amplifier to dissipate heat and may harm the finish. The unit requires adequate air volume or space around it to function properly.

### Section 10

### **Troubleshooting**

If you're reading this, it is because of some unfulfilled expectation for having sound come out of your new powered subwoofer. Let's see if we can go over some of the easy ways to remedy problems.

### No sound comes out

- **A.** Check that the unit actually powers up, look for the green LED. If not, check that the AC outlet is live by using a voltmeter, a circuit tester, or a lamp. If there is no power at the wall, consult a qualified electrician.
- **B.** If the AC outlet is live, and the amplifier is still not powered, double check that the power switch is in the ON position.
- **C.** If the unit is still not powered up, unplug the unit. Remove and test the fuse on the rear control panel with a continuity tester. If blown, replace with a new fuse of the same specified value.
- **D.** If the unit still refuses to power up, contact your dealer or local Tannoy distributor.

### If the unit is powered up and no audio comes out.

- **A.** Check the Master Level Gain Control, to ensure that it is in the position you expect it to be.
- **B.** Make sure there is input signal at one of the LCR or LFE inputs.

### You are only getting signal through the LFE input.

- **A.** Ensure that you are getting signal to the LCR inputs by exchanging the LFE input with one of the LCR inputs.
- **B.** If the Remote By-pass Cable is plugged into the Remote By-pass jack, make sure the switch is in the Bass Management position (-).
- **C.** If the Remote By-pass Cable is plugged in and the switch is in the (-) Bass Management position and no signal is coming out of the LCR inputs, disconnect it from the amplifier panel. If audio passes through, the Remote By-pass Cable has a fault. If audio does not pass through after disconnecting the Remote By-pass Cable, contact your dealer or local Tannoy distributor.

### Distorted sound comes out

- **A.** Is the subwoofer bass the only distorted sound, or are the main speakers distorted too? Check the signal quality at the subwoofer input by connecting the signal cables directly into the main speaker amplifier.
- **B.** If the sound is still distorted with only the main speakers on, the problem is in the source. If the distortion is eliminated by connecting around the subwoofer, test the cables from the subwoofer to the main speaker amplifier.
- **C.** If the subwoofer is the only distorted sound, determine if it is distorted at any level setting. If it only happens at high output levels, then it may be that you are overloading the input to the limiter. If you have eliminated the possibility of bass distortion in the source material, and confirmed that the unit is not being over-driven, contact your dealer or local Tannoy distributor.

### <u>Product Specifications</u> PS350 / PS350B

### **LOUDSPEAKER SECTION**

Frequency Response:

29 Hz - 300 Hz +/- 3 dB

Woofer diameter:

15" (381 mm) diameter

Low Frequency cutoff:

-3 dB @ 29 Hz, 6th order tuning vented box (36 dB/Octave below 31 Hz)

**AMPLIFIER SECTION** 

**Input Connectors:** 

PS350B - L/R XLR fully balanced inputs

PS350 - L/R RCA inputs

Input Level:

Continuously variable input gain control

Low Pass Filter:

Continuously variable 40 Hz to 150 Hz,

24 dB/Octave

All Pass:

31Hz to 300Hz +/-3 dB

**High Pass Filter:** 

Fixed at 80 Hz, 12 dB/Octave

**High Pass output:** 

PS350B - L/R, unity gain XLR balanced

PS350 - L/R, unity gain RCA

High Pass output bandwidth:

80 Hz to 150 kHz +/- 3 dB

**Maximum SPL:** 

116 dB peak SPL at 1 meter at limiter threshold

System dimensions:

20" high x 18 1/16" wide x 20" deep

508 mm high x 458 mm wide x 508 mm deep

System weight:

61 lbs - 27.7 kg

Amplifier type:

ProBASH™ technology featuring "High

Efficiency Linear Amplifier" circuit topology

Power rating:

350 Watts instantaneous peak (limiter threshold)

Protection:

Threshold at onset of clipping

Power indicator:

Front mounted LED is greed in active mode, "when signal is present or on initial power up". The green LED turns to red if signal is not present for more than two minutes indicating stand-by mode. The sub turns "auto on" when signal is re-introduced.

AC Power Requirement:

110/120 VAC 50/60 Hz

**Power Consumption:** 

\*At idle 15 Watts

\*At rated power 280 Watts

## Section 12 Warranty

No regular maintenance of the PS350/PS350B subwoofer is necessary.

All Tannoy professional loudspeaker products are covered by a 5 year warranty from the date of purchase subject to the absence of misuse, overload or accidental damage.

Claims will not be considered if the serial number has been altered or removed.

Work under warranty should only be carried out by a Tannoy Professional dealer or service agent.

This warranty in no way affects your statutory rights.

For further information please contact your dealer or distributor in your area. If you cannot locate. your distributor please contact Customer Services,

Tannoy North America Inc. at the address given below.

### DO NOT SHIP ANY PRODUCT TO TANNOY WITHOUT PRIOR AUTHORIZATION

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

# CAUTION

# RISK OF ELECTRIC SHOCK DO NOT OPEN

WARNING: SHOCK HAZARD, DO NOT OPEN.

AVIS: RIAQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR.

CUIDADO: PELIGRO DE CHOQUE ELÉCTRICO - NO ABRIR

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK)
NO USER SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED PERSONNEL

THIS **TANOY**. PRODUCT IS DESIGNED FOR 120-VOLT USE ONLY! FOR DETAILED SAFETY PRECAUTIONS, PLEASE SEE FOLLOWING PAGE IN THIS OWNER'S MANUAL FOR "IMPORTANT SAFETY INSTRUCTION".



The lightening flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclusure that may be of sufficient magnitude to constitue a risk of electrical 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.



L'éclair avec le symbole de la fléche, placé dans les limites d'un triangel équilatéral est prévu pour avertir l'utilisateur de la présence de "lension dangereuse" non isolée dans l'enceinte du produit qui pourrait érre d'une importance suffisante pour présenter un risque d'électrocution aux personnes.



La point d'exclamation dans un triangel équilateral est prévu pour avertir l'utilisateur de la présence d'instructions importantes pour les opérations et l'entretien (service) dans les manuels fournis avec l'appareil.

ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQUAU FOND.

"WARNING: SHOCK HAZARD - DO NOT OPEN. AVIS: RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR" or equivalent, together with the two graphical symbols - a lightning flash with arrow-point withing an equilateral triangle, an exclamation point within an equilateral triangle, appears on the removable cover to gain access.

"CAUTION: TO PREVENT ELECTRICAL SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT" and ATTENTION: POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND" or equivalent on a label attached on the line cord, or the owner's manual.