



OWNERS MANUAL TSUNAMI 10 D

DSP Board.



Before using this wonderful tool, please check the different points:



A. Généralities

The front panel is separated in two zones;

1. The two lines screen permit to visualise the status or the settings
2. The control knobs.



Name of the speaker			
Input format	Master Ou Slave	Perset curve	User curve

The top line shows the reference name of the speaker.

The lowest line shows the most important points or the settings status.



control all the system with 5 knobs:

- The one in the centre put the mute in function.
- To move in the menu please press the left and right knobs.
 - Use the left one for the previous stage.
 - Use the right one for the next stage.
- When you are on the desired position press the top or bottom knob to increase or to decrease the value until you get the one required.

Summary : From left to right , I move in the menu.
Up and down I adjust the settings.

B. Volume control

Use the left and right knobs until you find the right menu position.
Use the up and down knobs until you find the desired value.



Min - 40 dB
Max + 23 dB

The rise is done by step of 0.5 dB thanks to the up and down knobs .
Each click represent 0.5 dB.

To get access to the volume settings click right first to get out of the start screen. Now click once on the left knob . Now you are in the main menu . The main menu start with the volume control.

The central knob is the mute .
Press at the center to activate the mute.



C. Network address.



Becarefull : Never give the same adress at two different speakers. If you do so you will create conflicts.

With the right knob find the right menu position.

With the up and down knobs select the desired value.

The great interest of the DSP speaker from FAR is its fully autonomy. This means that the digital monitors from FAR are 100 % interchangeable. You must give an address from 1 up to 99.

This adress will be used when you want to drive the speakers or when you connect a remote control on the speaker.

Four different type of remote control are available.

1. **The speaker it self**. Indeed, the rear panel can control all the other speakers. That for put the speaker that will control the others in MASTER position and all the others in slave position. (see chapter master/slave).
2. **The remote control CP01**
The CP01 is the copy of the rear panel of your speaker. All identical functions are included. See remote control chapter.
The remote control is the master, All the other speakers will be locked as slaves.
3. **The PC SFPC01 (available NOV 04)**
The SFPC01 is the most powerfull control available. This will control your system with the accuracy needed in professional use.
Description see chapter remote control.
4. **The palm via blue tooth SFPM01(available March 04).**
The SFPM01 is identical to the SFPC01 but it has the big advantage to drive the whole system wireless.
Description see chapter remote control.

Obviously Never give the same adress at two different speakers. If you do so you will create conflicts.

D. Input selection :



With the right knob find the right menu position.
With the up and down knobs select the desired value.

If you are in automatic mode (as the settings are stored) the speaker will find by itself the signal injected.

The three formats are the followings:

Analogue

AES

SPDIF



The system will choose automatically the most performant. First the AES, Second the SPDIF and last the analogue.

You can also force the signal.

So you can for example connect the AES out of the console and the analogue out of the recorder and listen the difference between each of them by forcing one or another.

Be careful : When you are connected to a Digital signal (AES/SPDIF), the sound level is part of the signal. To protect the speaker against any damage, please decrease the level down to - 20 dB at minimum.

When you get an analogue connection, you can select one of the following sensitivity levels:

-10.dBu ; 0.dBu ; +4.dBu ; +16.dBu

E. Sensitivity

With the right knob find the right menu position.

With the up and down knobs select the desired value.



When you get an analogue connection, you can select one of the following sensitivity levels available:

- **-10 dB**
- **0 dB**
- **+4 dB**
- **+16 dB**

- If your hearing level is too high go up to : + 16 dB
- If your hearing level is too low go down to 0 db or down to – 10 dB.
-

As professional user, with + 4 output desk use the + 4 sensitivity level.

The dolby rules require at the listening position a sound pressure level of 85 db.

How to set up the 85 db ?

Use a pink noise at 0 dB level out from the mix desk (calibration at 0 db vu at the meters).

Adjust the volume level of the monitor to get 85 dB at the listening position.

In analogue, please select the correct input sensitivity and next adjust the desired volume level.

In Digital adjust straight the level volume until you get the 85 dB required.

F. Channel A Channel B // Canal A Canal B

With the right knob find the right menu position.

With the up and down knobs select the desired value.



The audio digital signal includes two channels A and B or left and right. A will be connected to the left and B will be connected to the right audio channel.

When you are digitally connected please:

Use the **channel A** in the one that will receive the audio **first**, and place it at the **left** position because it is the left channel.

Next, get out of the A speaker and connect it to the **second** or **B** speaker that will be at the **right** position.

Select the channel B in the second or right speaker.

If you select two times the left channel you will hear twice the left channel.

If you select two times the right channel you will hear twice the right channel.

A strange kind of mono.

For the stereo, you must be in A for the first speaker and in B for the 2^{ème} speaker.

Why A and B and not left and right?

Just because these are pairs and can be used in other configurations like:

- A centre and a sub.
- A left surround and a right surround.
- Or other configuration you can invent yourself.

Master slave

With the right knob find the right menu position.

With the up and down knobs select the desired value.



One of the most important advantages of the digital is the data's transfer.

You can drive a speaker from another if you are in the correct configuration.

This means that when you will move a value on one speaker the other entire one will change the same way. To do so, you need to place yourself in the following position.

- The first speaker must be placed in Master position.
- Use a stereo mini jack to get out of the remote connector of the first and master speaker and connect it to the input of the second and slave speaker . Link all the speakers you want to with a maximum of 99 speakers.
- All the others must be placed in slave position.

When it is done, you can do the following test:

Put your first left master speaker on the volume position and press the up and down knobs .

You will hear the level modification. Take a look at the display of any of the other speakers, you will notice that the digits are changing the same way.

Be careful !!: All the values need to start at the same level except if you want to implement a difference.

For example:

If the volume level is at -11 dB on the right slave speaker and that the level of the left master speaker is at -10 dB, When you increase the volume of the master speaker of 2 dB it means that the level of the master will be at -12 dB and the level of the slave speaker will be at -13 dB . It means that the difference remains.

Why?

Just because if you want to include a difference you still can do it, but do it when you do the first set up.

What kinds of difference are interesting to implement?

If the left speaker is closer to a corner than the right one you will maybe decrease the low tilt or shelf of 1 or 2 dB just to balance the bottom end of the two speakers. When the set up of the correct difference is done, you can make the adjustments of the entire system and you don't need to care about this difference because it is already done.

Take care:

If you don't know that there is a difference between the speakers you will keep this difference. This is why we installed a summary on the display when you power the speaker

Connections:

Of course you must link all the speakers you want to drive with the 3.5 mini stereo jack .

G. Curve selection

With the right knob find the right menu position.

With the up and down knobs select the desired value.



For more flexibility and more efficiency, you can select 5 different presets. (One at a time)

- Flat
- Academy : for film mixing
- TV : for broadcast mixing.
- Car & club : To simulate the feelings in a club or in a car.
- Custom

H. Room adjust

With the right knob find the right menu position.

With the up and down knobs select the desired value.



The room ajust N°1 is flat as standard. The 4 next presets can be optimised following the wishes of 4 different sound engineers. Adjustment can only be done with PC software FAR module.

I. Tilt adjustment : bass ; mid ; high ; tilt

With the right knob find the right menu position.
With the up and down knobs select the desired value.



A high quality basic equalisation can be done through the 3 different tilt adjustments. Low, mid and High tilt can be boosted up to 1 dB and down to -3 dB.

J. Shelf adjust : low high

With the right knob find the right menu position.
With the up and down knobs select the desired value.



These adjustments will help you to match your speakers with their position in the room. The bottom end, low shelf will be decreased if you place your speaker close to a corner. The High or high shelf will be decreased if your room is too live. So you can adjust the settings up to +1 dB and adjust the settings down to -3 dB.

K. Connexions

The digital active FAR speakers need to be connected as any other speaker.

- Power

220 V ou 110 V following the country to make the power connection
Power switch (+Fuse) : To open or close your speaker.

- Audio connexions

Audio : digital AES ou SPDIF

In : First connection for the digital pair. Don't forget to put the speaker in position A.
It is normally done in the factory.

Out : Output for the second connections on a second speaker.
So when you get out of the first speaker you must get in on the second one.
Don't forget to put the second speaker in B position.

The SPDIF and AES are basically identical. For a better stability choose a symmetrical adaptation for the SPDIF so you can benefit of the galvanic protection of the AES input transformer.

Audio : analogue
IN only . Just as any loudspeaker..

Network : In – Out : link the speakers between themselves. Just connect the output to the next input and so on until all your system is ready.

L. Caractéristiques techniques

- Loudspeakers

Sensitivity

Max pressure level 122dB

(2 cabinets @ 1m)

Frequency Range 38-20000Hz

Active Filters

Low Pass 3,4kHz, 24dB/octave

User control -1/flat/+1/+2dB

High Pass 3.4 Hz, 24dB/octave

User Control -3/-2/-1/flat/+1/+2

Drivers

Woofer 200 mm

Tweeter 25 mm soft dome

Cabinet 18 mm MDF

- Amplifier

Nominal/Peak Power

LF amplifier 100W/150W

HF amplifier 70W/100W

Power Bandwidth 20-25000Hz

Slew-Rate 35V per microsecond

S/N Ratio >100dB

Distortion

Intermodulation 0.01%

Total Harmonic 0.05%

Input

Sensitivity 0dB

Impedance >10kohm

Mode Electrony balanced

D-A

24 bits signal

Input sample rate 8 – 108 KHz

Frequency range 22 KHz (-0.1 dB), 45 KHz (-3 dB)

Linearity < 1 dB at – 110 dBFs

SNR > 116 dB

Dynamic range > 113 dB

A-D-A

(24 bit – 96 KHZ)

Balanced analog input (selectable full scale, max + 16 dBu)

THD+N < 0.002 % at full scale, 1 KHz, flat over

frequency range

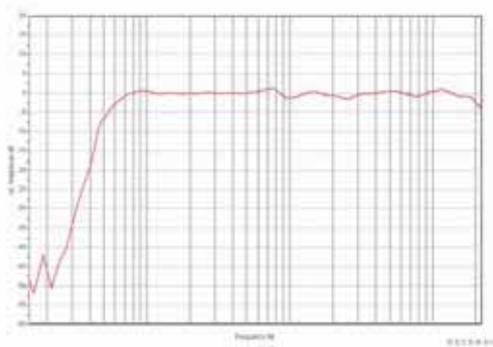
Propagation delay < 70 us (with DSP s activated)

M. External dimensions

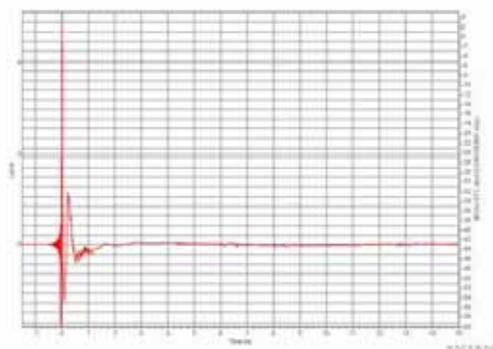
Height	385 mm
Width	210 mm
Depth	320 mm

N. Graphiques

TS 5 Fréquency



TS 5 impulse Réponse



TS 5 Step

