

Quick User Guide

SOUND4 FIRST

Digital Stereo Generator, RDS/RBDS, 2-Band AGC, IMPACT Clipper!

BEFORE YOU USE THIS PRODUCT

In order to be able to enjoy all the benefits of owning your new SOUND4 product, please verify first that the latest software and firmware release were installed.

Visit <u>www.sound4.com/downloads</u> for the most recent software and firmware downloads, prior the installation.



SOUND4 Limited is an ISO 9001:2015 certified company.

This Quick user guide will make the installation of SOUND4 FIRST quick and easy. Applying these principles, you can simplify the process and save yourself extra time and effort.

STEP 1

Universal Installer

The Universal Products Installer is the complete installation kit for all SOUND4 Products. The program is provided free of charge and can be downloaded from www.sound4.com/downloads. Installation packages for MS Windows and Linux Ubuntu OS are available.

STEP 1.1

Windows users

Upon entering the section, click on and download Universal All Products Installer. Once the process is completed install the .exe file. SOUND4's products are compatible with the Microsoft Windows Operating Systems listed below:

- Windows 7 32 & 64 bits
- Windows 8 32 & 64 bits
- Windows 10 32 & 64 bits
- Windows Server 2008 R2
- Windows Server 2012

IMPORTANT NOTE: Due to Microsoft security changes, your operating system must be up-to-date, if not SOUND4 Driver will be locked by Microsoft and you will be not able to run the SOUND4 Remote Control Software.

STEP 1.2

Linux Ubuntu OS

SOUND4 proposes you to install the software package under your own Ubuntu. Compatibility with Ubuntu distributions:

- Lucid Lynx 10.04 LTS
- Precise Pangolin 12.04 LTS
- Trusty Tahr 14.04 LTS
- Xenial Xerus 16.04 LTS

Installation For a PC hosting SOUND4 card and running compatible Ubuntu version:

- 1. Click on the following link to add SOUND4 repository -
- www.sound4.biz/repository/ubuntu/sound4-repository.deb
- 2. Then install the driver with following link apt://sound4exp1?refresh=yes
- Finally, install the SOUND4 server with following link apt://sound4server

If you also want to install:

- the SOUND4 Remote Control, please use the following link - apt://sound4remote

- the SOUND4 Stream, please follow the link - apt://sound4stream

If you prefer to manage package installation by yourself, please follow the instructions below:

- 1. Add the following source to your Ubuntu repository list (example for lucid) deb http://www.sound4.biz/repository/ubuntu lucid non-free
- 2. Then get the SOUND4 GPG signature key waet -o http://www.sound4.biz/repository/sound4.apg -O-I sudo apt-key add -
- 3. Install required packages sudo apt-get update && sudo apt-get install sound4exp1 sound4server sound4remote sound4stream
- 4. Add the user to the audio group (needed for Alarm Stacker GUI) sudo adduser \$USER audio
- 5. Log off and on to make the settings effective.

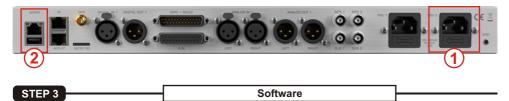
STEP 2

Connection

For the initial set-up of the device you will only need to connect:

1 of the power cables to PSU 1 socket;

• Connect SOUND4 FIRST to the TCP/IP network using a direct network cable, connected to the ADMIN port of the device NOT to the IP ports.



Double click on the software will open the main control window. The Remote control software can maintain several devices at once. There are two options of adding a new device. Both are explained in details below.

SOUND 💋 REMOT	ECONTROL				
Launch Scan	New Edit	Delete Shortcut	View Icon	Sort	More
Remote Connection List (Sorted By Con	nnection Name):				
Search : All	● X in	Connection Name			About
Remote Connection Info:					
Product :					
Connection Name :					
Radio Name :					
City :		La	st Connection :		

STEP 3.1

Scan interactive button

1. Press the [Scan] button;

2. A window with all network interfaces on the PC will appear. Select the IP address (the interface) on which the scan should be made, and press [Run Scan];

3. Wait until the scan is completed;



4. Upon completion, the Add Custom Network message will appear;

5. To add the device to the list, select the connection and press [OK];

6. The device will be added automatically (as depicted in **Step 3.2**). Double click on the icon will open the device's interface (**Step 3.3**). The default access credentials are user name: **admin** and password: **admin**.

Networ	ks	
Network	Interface:	
Selected	IP	Subnet Mask
	2)
•		•
	3001	
Refresh I	nterface Add Custo	m Run Scan
Add Cu	stom Network	\times
Product	Found:	
Selected		
×	SOUND4 FIRST - 211A0001 - 0	dmin - SN211A0001
	4)
		Ok Cancel

STEP 3.2

1. Press the [New] button.

2. A new screen requiring the following information will appear:

New	\times
Connection Name	Enter Connection Name
Radio Name	Enter Radio Name
City	Enter City
Num / IP	localhost
Port	3001
User Name	Enter Name
Password	Enter Password
	Ok Cancel

3. If you are not aware of SOUND4's IP address, it can be seen via the front panel. When the Main screen is on, press the soft button labeled [INFO]. Then using the [Up] and [Down] buttons navigate to IP (2/4) where the IP address of the device will be depicted.

NOTE: The numbers included in the IP Address must be written without leading zeros. For example: **192.168.020.136** must be written as **192.168.20.136**

4. Enter the required information. If not changed by the user, use the default value of the Port (3001). The username and password are as follows:

- User name - admin;

- Password - admin.

5. Press [OK]. A new device will be added. Double click on the newly added icon will open the control interface (**Step 3.3**).

SOUND 🚧 REMOT	E CONTROL	_]						\times
Launch Scan	New Edit	Del	ete SI	hortcut	View Icon		Sort	More
Remote Connection List (Sorted By Con	nnection Name):							
Search : All	• ×	in Conne	ction Name					About
SOUNDA FIRST-21								
Remote Connection Info:								
Product :	SOUND4 FIRST					192.168.20	.203	
Connection Name :	SOUND4 FIRST - 211 A000	1 - admin - SN			Port :	3001		
Radio Name :				Use	r Name :	admin		
City :				Last Con	nection :			

STEP 3.3

Successful Log-in

A successful log-in the system will open SOUND4 FIRST's main control windrow:

Dig In (dBfs) 97.7	L Dig Out (dBfs)		Custom 3 Custom	VU+Peak 1e+000 1e-001 1e-002 1e-003	Power: 10.0 dBr Peok of 1e-5: 75.5 kHz Time dam 175
Ana In (dBfs) 931	Current PS			1+004 1+005 50k 60k 1+005	00 - <i>i</i> fs 0 76 11
Workspace – I/C		n Processing HD Processing	IP Connect	Streaming	Emergency Player
ANALOG 1 → FAULT DIGITAL 1 → FAULT IF CONN 1 → FAULT	Process In (dBfs) (15.6) (1010) -60 -4 (14.8) (1010)	the sound first	- 211A0001	Undo Save	Save As New About
EPLAYER → OK TO HD PROCESS	MPX [kHz] 75.2 0 15	Preset dBr - Clips	per Only - (From PULSE or	Redo Preset C	Compare Histo Setup
		Basic Advanced			
al -1616 -66	BASS 00 40 -24 -18 -12 -6	MPX Power Target	LF Clip Threshold	MLimiterDrive === MPXLimite	rDrive Embed Pilot
ers 30 10 10 10 BASS FM MPX PWR	FM 00 40 -24 -16 -12 -6	FM 12.0 dBr 0.0	0 dB 4.0 dB	0.0 dB	6.00 dB On
— TX1 → MPX	MPX 23	MPX Power StandBy			
TX2 → MPX	PWR 00 ! ! ! !	FM -18.0 dB			
	10 -8 -6 -4 -2				
Masila —					
Monitor —					
Routed to : Phone Out					

STEP 4	License Upload	
31EP 4		

There are two options of loading a new license/s. Both are explained in details below.

STEP 4.1 **Expired License**

If your license has expired, a warning message "Your main license has expired! Please contact SOUND4 for renew your main license" will appear on the screen

To upload a new license follow the steps listed below:	SETUP Print Settings		(
steps listed below.	General		
	Users	Licenses Lisl:	
1. Press [OK]. The following screen will	Preset Settings	License	Validity Time left
	Voice/Mono Detect		
appear;	Inpuls		
	Outputs		
2. Press [License upload] and a new	Stereo Generator & MPX Output		
window requiring license file to be	Bosic RDS Encoder		
	MPX Power Control (85-412)		
selected will open;	Ethernel: AE\$67/LIVEWIRE+		
	Elhemel: IP CONNECT		
0 On the line file of a stress sector to the	୍ୱଜ୍ଞାର		
3. Go to the file directory, select the	Synchro		
license and press [Open].	Preset Sharing		
	IP CONNECT		
	Links		
NOTE: All licenses are sent/provided in a	ADVANCED -		
ZIP file. It is not needed the file to be	Upgrade / Licenses		
unzipped prior to their upload. They will be	Bockup / Restore		
	Test Generator		
accepted by the program as they are.	Calibrate		
	Hardware/Supervision		
	Maintenance		
	Service: Management		
	AES67/Livewire+ Audio QOS	version nfo: -	
	AFS67/livewiret Audio Profiles		

FIRST Serie

- 4. Wait until the licenses are loaded;
- 5. Once the process is completed, a notification message will appear:
- 6. Press [OK] and the Main control window will appear.



STEP 4.2 NEW License

1. Open the Main control window and click on [Setup]. The setup menu will appear;

2. Scroll down with the cursor to the ADVANCED settings and press Upgrade Licenses. The Following window will appear:

SETUP Print Settings					
SETTINGS —					
	Load License				
General	Licenses List:				
Users	License		Validity	Time left	
Preset Settings				2 days 11 hours	
Voice/Mono Detect				2 days 11 hours	
Inputs	Demo License - Option Commercia		2018-03-31	2 days 11 hours	
	Demo License - Option Emergency		2018-03-31	2 days 11 hours	
Outputs	Demo License - Option Full RDS/UEC		2018-03-31	2 days 11 hours	
Stereo Generator & MPX Output	Demo License - Option IP Connect I		2018-03-31	2 days 11 hours	
Basic RDS Encoder	Demo License - Option IP Connect		2018-03-31	2 days 11 hours	
MPX Power Control (BS-412)	Demo License - Option IP Connect		2018-03-31	2 days 11 hours	
	Demo License - Option IP Connect		2018-03-31 2018-03-31	2 days 11 hours 2 days 11 hours	
Ethernet: AE\$67/LIVEWIRE+		Demo License - Option IP Connect Rx to Tx Pass-thru			
Ethernet: IP CONNECT	Demo License - Option Livewire+ Demo License - Option Streaming E		2018-03-31 2018-03-31	2 days 11 hours 2 days 11 hours	
GPIO	Demo License - Option Streaming E Demo License - SOUND4 FIRST	2018-03-31	2 days 11 hours 2 days 11 hours		
Synchro	Demo License - SOUND4 IMPACT	2018-03-31	2 days 11 hours		
	Demo License - SOUND4 RULSE		2018-03-31	2 days 11 hours	
Preset Sharing	Demo License - URLPLAY		2018-03-31	2 days 11 hours	
IP CONNECT -		I		1 2 dotte i i nodite 1	
Links					
ADVANCED -					
Upgrade / Licenses					
Backup / Restore					
Test Generator					
Calibrate					
Hardware/Supervision					
Maintenance					
Services Management	Manifest Infest				
AE\$67/Livewire+ Audio QO\$	Version Info: —				
AE\$67/Livewire+ Audio Profiles	FIRST Version				
Livewire+/AE\$67 Advertisement	FIRST Serial	211A0001			

3. Press [Load Licenses];

4. Go to the file directory, select the license and press [Open].

NOTE: All licenses are sent/provided in a ZIP file. It is not needed the file to be unzipped prior to their upload. They will be accepted by the program as they are.

5. Wait while the licenses are loaded;

6. Once the process is completed, press [OK] and close the Setup window so that the Main control can appear.

If not already done that, connect all the additional cables to the device in order for it to be properly integrated into your existing network.

STEP 5.1	Inputs and Outputs Set-up	
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The basic set-up of the inputs and outputs can be easily made via the **I/O Routing and Levels** section of the Software.

The management section is placed on the left part of the screen and is divided in two parts - **Inputs to Patch Point Management (1)** and **Outputs to Patch Point Management (2)**. Both sections allow application of the inputs and outputs to be assigned as well as their range and levels.

	+	Custom	1	Custor	12	Custo	m 3	Custo	om 4		X) -	- [\square \times
Dig In (dBfs) •929 t	0		· · · · · · · · · · · · · · · · · · ·	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				~^^	*	6	VU+Peak	e+000 1e:001 Peok of 1e- 1e:002 Time: 47m4 1e:003	5:75.5 kHz ∾	set Ref 1e-5
Ana In (d6fs) (93.4 (10.000 cm) * Current PS	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		10.0k		204		30k	40		504		1e-004 1e-005 1e-005 -100 -75		75 100
Workspace — I/O Routing & Levels Main Processing		HD I	Process	ing		IP (Connec	st		Stre	aming	Emerg	ency Play	er
Process In [dBfs]														
3.0 ງິ້ມຢຸມບໍ່ມີມູນ ເຊິ່ມມູນບໍ່ມີມູນບ່ນີ້ມູນບ່ນີ້ມູນບໍ່ມີມູນບ່ນີ້ມູນບໍ່ມີມູນບໍ່ມີມູນບໍ່ມີມູນມູນມູນບ່ນມູນມູນມູນມູນມູນມູນມູນມູນມູນມູນມູນມູນມູນ	el sour	ID4 FIRST	r-211A0	001							Save	Save As	New	About
MPX [kHz] 75.6]mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm	et d	Br - Clip	oper Only	- (From	PULSE	r IMPAC	T) - Outp	ut 🗖	••		Preset 🕻	Compare	Histo	Setup
		Mair	n Processir	0	HD Proc	essing								
	Direct		Direct		Direct		Direct							
Inputs To Patch Point Management Failover: Backup														
Type Application Process Input	In		In		In		In							
Analog 1 1st Backup Dist Backup														
Analog 2														
Digital 1 Main														
Digital 2														
LIVEWIRE 1														
LIVEWIRE 2														
IP Conn 1 2nd Backup 2nd Backup														
IP Conn 2 · · · · · · · · · · · · · · · · · ·		2-Band		2-Band		4-8 EQ		FM		MPX				
E Plaver 3rd Backup		AGC		Limiter		(FM)		Limiter		Limiter				
Outputs To Patch Point Management														
Type Application Replicate			Out		Out		Out		Out		Out			
Analog 1 HD Out														
Analog 2 HD Out														
Digital I HD Out														
Digital 2 ···· HD Out ····														
LIVEWIRE 1 HD Out (2)														
LIVEWIRE 2 HD Out														
IP Conn 1 HD Out														
IP Conn 2 HD Out Stream HD Out														
Stream HD Out))			
How loud you are in dBr? Instantaneously you are at 8.42 dBr On last minute Avera	ige you an	e at 🗇	7.54 dBr	You an	e comfo	rtable f	or a clea	in sound						

The set-up process is different for each parameter, but quite simplified and explained in details below:

Inputs Set-up

1. Click on the name of the desired Input;

2. The respective set-up window will appear. Apply the desired settings and press [X]. The changes will be automatically saved.

• For the Analog inputs - set Input Range and Input full-scale Reference:

	Inputs To Pate	ch Point Management	Faile	ver: Backup	Direct	Direct	Mix
\sim	Туре	Analog 1 Input level					\times
(1)	Analog 1 🚥						2
	Analog 2	Input Range		12 dBu 🔳			
	Digital 1	Input full-scale Reference (dBu	1			10.00	10
	Digital 2		1			18.00 c	IRU
	LIVEWIRE 1		(-5.1) Juliuu			ndané dia ka	1 L
	LIVEWIRE 2	Meter [dBfs]	-60 -5	4 -48 -42 -36	-30 -24 -18	-12 -6	R
	IP Conn 1						·

• For the Digital Inputs and the Emergency Player Input level - set Input full-scale Reference:

Digital 1 Input level		\times
Input full-scale Reference [c	JBfs]	0.00 dBfs
Digital In [dBfs] (48.0 kHz)		-6 0 R
Emergency Player Input	level	\times
Input full-scale Reference [c	JB fs]	0.00 dBfs
Meter [dBfs]	 2.2 խսփոփակավասիսփոփոփոփոփոփոփոփոփոփոփոփոփոփո -60 -64 -48 -42 -38 -30 -324 -18 -12 -33 խսփոփոփոփոփոփոփոփոփոփոփոփոփոփոփոփոփոփոփո	-6 0 R

• For the **LIVEWIRE inputs** - Enable the input by selecting [ON] with a click, then select LAN mode by clicking on [LIVEWIRE ...], number of channels, From/To Source, Primary Source Name, Local Name, Stream mode, Status and Input full-scale Reference:

LIVEWIRE 1 Input level	X
Enable	Off
LAN Mode	
Channel	0
From/To Source	From Source
Primary Source Name	
Name (local)	Ch1
Stream Mode	Unknown
Status	Disabled
Input full-scale Reference [dBfs]	0.00 dBfs
Meter [dBfs]	54 -48 -42 -26 -20 -24 -18 -12 -6 0

3. To assign application of the Input, press on the **Process Input** label or on ... (if such is not assigned to the input);

4. A window with the possible options will appear. Click on the one preferred and the window will disappear, automatically assigning the chosen value.

Inputs To Patch Point Management		Failover: Backup	Direct	Direct	Mix
Туре	Application	Process Input	In	In	In.
Analog 1	Main	3 Main	😑 Main	Source	(4)
Analog 2	2nd Backup	○ 2nd Backup	1st Backup Source		
Digital 1	1st Backup ····	🗆 1st Backup	2nd Backup Source		
Digital 2		3	3rd Backup Source		
LIVEWIRE 1					

Outputs Set-up

1. Click on the name of the desired Output;

2. The respective set-up window will appear. Apply the desired settings and press [X]. The changes will be automatically saved.

• For the **Analog Outputs** - set Output range, select Application from the drop-down menu, then Auto De-empahis and Output full-scale Reference;

	Outputs To Po	atch Point Management	
	Туре	Analog 1 Output level	<
1	Analog 1		
	Analog 2	Output Range 12 dBu	
	Digital 1	Application Ana2 replicate	
	Digital 2		
	LIVEWIRE 1	Auto De-Emphasis Auto	
	LIVEWIRE 2	Output full-scale Reference [dBu]	
	IP Conn 1		
	IP Conn 2	Meter [dBu]	
	Stream	Meter [dBu]	

• For the **Digital Output level** - select Application from the drop-down menu, then Auto De-Emphasis, Sampling Frequency, AES In Sync, AES 2 In Sync, Use External Word clock, Ext. Video Sync and Output full-scale Reference;

Digital 1 Output level	×
Application	HD
Auto De-Emphasis	Auto
Sampling Frequency	48 kHz ■■■
AES In Synch (48.0 kHz)	No
AES2 In Synch (No signal)	No
Use External Word clock (No signal)	No
Ext. Video Synch (No signal)	No
Output full-scale Reference [dBfs]	-1.00 dBfs
Meter [dBfs] (48.0 kHz) [48k] (-5.6 السلسل) -ده -ده -ده السلسل)	ովոսիտիսիսիսիսիսիսիսիսիսիսիսիսիսիսիսի) (1, է 4 -48 -42 -86 -80 -24 -18 -12 -6 0 սիսիսիսիսիսիսիսիսիսիսիսիսիսիսիսի) (1, է

• For the **LIVEWIRE Output level** - Enable the output by selecting [ON] with a click, select profile by clicking on [Livewire Live Audio...], number of channels, Name, Label, Status, Configure GPO, select Application from the drop-down menu, then Auto De-Emphasis, and Output full-scale Reference.

LIVEWIRE 1 Output level	×
Enable	Off
Profile	Livewire Live Audio
Channel	0
Name (local)	Ch1 ===
Label (local)	Ch1 •••
Status	Disabled
Cfg GPO	•••
Application	HD
Auto De-Emphasis	Auto
Output full-scale Reference [d	-1.00 dBfs
Meter [dBfs]	-5.7 խափափափափափափափափափափափափափափափ) ', ', ', ' -60 -54 -48 -42 -36 -34 -18 -12 -6 0 -5.6 խափափափափափափափափափափափափափափափափափ) ', ', ' * -

• For the **IP Connect level** and **Stream Output level** - select Application from the drop-down menu, then Auto De-empahis and Output full-scale Reference;

IP Connect 1 Output level	×
Application	HD
Auto De-Emphasis	Auto
Output full-scale Reference [dBfs]	-1.00 dBfs
Meter [dBfs]	փոփոփոփոփոփոփոփոփոփոփոփոփոփոփոփոփոփոփո
Stream Output level	X
Application	HD
Auto De-Emphasis	Auto
Output full-scale Reference [dBfs]	-1.00 dBfs
Meter [dBfs]	փափակակափափակակակակակակակակակակությունը՝ ի ՝ լ՝ լ -54 -48 -42 -36 -30 -24 -18 -12 -6 0 փափակակակակակակակակակակակակությունը՝ ի ՝ լ՝ է

3. To assign Replicate of the Output, press on the Replicate label or on ... (if such is not assigned to the output);

4. A window with the possible options will appear. Click on the one preferred and the window will disappear, automatically assigning the value chosen.

Outputs To Po	atch Point Management		
Туре	Application	Replicate	Out Out
Analog 1	Ana2 replicate •••	3 Ana2	AGC In 4
Analog 2	HD Out		Ana1
Digital 1	HD Out		🗢 Ana2
Digital 2	HD Out	3	Dig1
LIVEWIRE 1	HD Out		Dig2
LIVEWIRE 2	HD Out		LIVEWIRE 2
IP Conn 1	HD Out		IP Conn 1
IP Conn 2	HD Out		IP Conn 2
Stream	HD Out		E Player

STEP 5.2

Presets Selection

To select a preset, press on [Preset] button (1), and list of all presets will appear on the screen.

SOUND 4	FIRST	Meters —	Default	Custom 1 Cu	stom 2	Custom 3	Custom 4		B	—	
Dig In (dBfs)	-99.9 -00 -20 0 -99.9	Dig Out (dBfs)			1			VU+Peak		-5:75.5kHz R65	set Ref 1e-5
Ana In (dBfs)	-91.3	Current PS				atk	408	50k	1e004 1e005 1e005 -100 -75	÷	75 100
Workspace	- I/O Routing	& Levels Main Pro	cessing	HD Processing	3	IP Connect		Streaming	Emer	gency Play	er
Process In (dBfs)	19.0 jadatatatatatatatatatatatatatatatatatata	a)ma(ma)ma) ∎ -30 -24 -18 -12 -6 0 mana(ma) ∎	Channel	SOUND4 FIRST- 211 A0001			••••	Undo	ave Save As	New	About
MPX [kHz]	68.7) ແມ່ນເມິນເປັນເປັນເປັນເປັນເປັນເປັນ 0 10 20 20	40 50 60 70 80 90	Preset	dBr - Clipper Only - (i	rom PULSE or	IMPACT) - Output			sset 🕽 Compare	Histo	Setup

Double click on the desired preset will load it automatically to the device.

