

Quick User Guide

SOUND4 PULSE

Intelligent AGC, 3-Band Processor, Stereo Enhancer, IMPACT Clipper! + many options

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.



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SOUND4 Limited is an ISO 9001:2015 certified company.

This Quick user guide will make the installation of SOUND4 PULSE 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
- Then get the SOUND4 GPG signature key wget -g http://www.sound4.biz/repository/sound4.gpg -O- | 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.

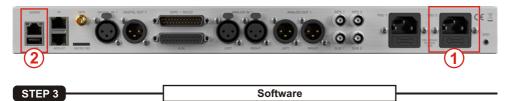
STEP 2

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 PULSE 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];

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.





STEP 3.2

1. Press the [New] button.

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

User Name/Pass	word X
User Name	admin
Password	
Connection Name	SOUND4 PULSE - 211A0001 - admin - S
Radio Name	
City	
	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**).

Launch Scan		Dele	ete	Shortcut	View Icor		Sort	More
Remote Connection List (Sorted By Co	nnection Name):							
Search : All	🔎 X in	Connec	tion Nam e					About
SOUND4 PULSE-21_								
Remote Connection Info:								
Product :	SOUND4 PULSE					192.168.20	0.203	
Connection Name :	SOUND4 PULSE - 211A0001 - ad	lmin - S.,			Port :	3001		
Radio Name :					User Name :	admin		
City :				Last C	onnection :			

STEP 3.3

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

)UND🚧 PULS	5E	Meters	- Default Cu	atom 1 Custom 2 Cust				
	1010101010101					(VU+Pesk)	1+100 1+000 Power & 0.08t 1+000 Peol of 1-5-75 0.04t 1+000 Peol of 1-5-75 0.04t 1+000 Peol of 1-5-75 0.04t	Kosel - Rof I e
Ana in (dBfs) 412.6 (0000)	101010(;;);;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	rent PS			204 404		1+00 1+00 1+00	75
	Workspace —	I/O Routing & Levels M	ain Processing H	ID Processing IP (Connect Strea	ming Emergency Pl		
ANALOG I → OK DIGITAL I → OK DIGITAL I → OK IP CONN I → NO SIGNAL EFLAYER → NO SIGNAL	Process in (dBts)	4448444						
B FERLAVER THO SIGNAL	Wix MHI 333 9 10 10 10	s 20 28 20 28 40 48 60 88 60		Preset dBr - Natural		•••	Redo Preset C Compare	Histo Setu
-15		Basia Advanced						
-20 h Att	н сар ини ини и сар	Gate Threshold	Drive	Attock ===	Release ==	Fidelly		
-16- -16- -10- 	L 00 11 11 10 10 10 10 00 20	-\$0.0 de		0.0 d8	4 o8/s	1.0 d8/9	78.0 %	
100 101 101 101 101 10		Bala Advanced						
		Fot EQ	Low EQ	Mid EQ •••	High EQ	0.0 dB	3.0 dB	
Lim. Piant and P		0.0 de		0.0 d8	0.0 d8	0.0 dB	3.0 d8	
	Stereo FX —	Bosio Advanced						
		Stereo Link	Width	Limiter				
				23.0 %				
	• 3-Band Process —	Basic Advanced						
TO HD PROCESS		Gate Threshold	Down Expand	Fidelity ===	Sound Impact System			
	н 👞 Миницир (12,12,12)	-65.0 de		0.0 d8	69.0 %	0.4 d8		
	H (a)	Drive ===	Attock	Release ===				
	M (40 Linitiation) (30) L (30) Linitiation (31)	0.0 dE		310 dB/s				
	do dal da da d	Mix L (dB)	Mix M (dB)	Mix H (dB)				
ASS FM MPX FWR		0.0 dž	-	0.0 d8				
TX1 → MPX TX2 → MPX		Ballo Advanced						
	40.48.48.49.47.17	Drive						
	H (10) H	0.0 dE						
	L 32.0 HINNIN 000	Mix L (dB)	Mx M (dB)	Mix H (dB)				
	L 324 41 41 42 4 1	0.0 dē		0.0 d8				
Monitor	4-Band Param EQ —	Bosio Advorced						
-60.0 dB	- The and the annual	Fot EQ	Low EQ	Mid EQ	High EQ			

STEP 4 License Upload

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 SETUP Print Settings steps listed below: 1. Press [OK]. The following screen will appear; 2. Press [License upload] and a new Bosic RDS Encode window requiring license file to be selected will open: 1 3. 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. et Audio Profi PULSE Serial

- 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				٢	\times
SETTINGS -	Load License				
General	Licenses List:				
Users	License		Validity	Time left	
Preset Settings	Demo License - Option AES67		2018-03-31	8 days 13 hours	
- Voice/Mono Detect				8 days 13 hours	
				8 days 13 hours	
Inputs	Demo License - Option Emergency A				
Outputs				8 days 13 hours	
Stereo Generator & MPX Output				8 days 13 hours	
Basic RDS Encoder				8 days 13 hours	
MPX Power Control (BS-412)				8 days 13 hours	
Ethernet: AE\$67/LIVEWIRE+	Demo License - Option IP Connect R			8 days 13 hours	
Ethernet: IP CONNECT	Demo License - Option Livewire+		2018-03-31	8 days 13 hours	
	Demo License - Option Streaming E	tension	2018-03-31	8 days 13 hours	
	Demo License - SOUND4 FIRST		2018-03-31	8 days 13 hours	
Synchro	Demo License - SOUND4 IMPACT		2018-03-31	8 days 13 hours	
Preset Sharing			2018-03-31	8 days 13 hours	
IP CONNECT -			2018-03-31	8 days 13 hours	
Links					
ADVANCED -					
Upgrade / Licenses					
Backup / Restore					
Test Generator					
Calibrate					
Hardware/Supervision					
Maintenance					
Services Management					
AES67/Livewire+ Audio QOS	Version Info:				
AE\$67/Livewire+ Audio Profiles	PULSEVersion	1.29			
Livewire+/AE\$67 Advertisement	PULSE 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

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.

		Default		Cust	om 1	c	ustom	2	Custor	m 3	Custo	om 4		G	B		_		$] \times$
	Dig In [dBfs]	•	3838888850		~~			<i></i>			~~~	~~~~~	v	+Peak	le le	Peak	: 7.5 dBr at 1e-5: 27m16e	75.5 kH	et -Ref 1e-5
	Ana in [dBfs] (17.6) (11.1 + 1 -0 -30 - 0 -17.6 (11.1 + 1 -17.6 (11.1 + 1) -17.6 (11.1 + 1)		40 -70 -90 -90			10.00	Ĭ	204	30	8	40k		sök	6		004 005 100 -75		ő	75 100
		Processing		H	D Pro	cessing	1		IP Co	onnect				eaming			Emerg	gency P	layer
	Process In [dBfs] -02 m m mphphphphphphphphphphphphphphphphph	R Channel	SOUN	D4 Pl	JLSE-	211A000					•••			Sav	0	Save A		New	About
	MPX [kHz] 75.6 mlminimimimimimimimimimimimimimimimimimi	Preset	dB	Br - R	lock						•••			Preset	8	Compa	re	Histo	Setup
					Ma	in Process	ing	HD Pro	cessing	,									
1	Inputs To Patch Point Management Failover	Backup	Dir	ect		Direct		Direct		Direct		Direct		Direct					
\checkmark	Type Application	Process Input		n				In		In									
	Analog 1 1st Backup	1st Backup																	
	Analog 2																		
	Digital 1 Main	🛑 Main																	
	(Digital 2)	••••															
	LIVEWIRE 1			••••															
	LIVEWIRE 2 ····			••••															
	IP Conn 1 2nd Backup	2nd Backup																	
	IP Conn 2			••••															
L	EPlayer ••• 3rd Backup •••	3rd Backup			2-B AGC		Tone FX		Stereo FX		3-B Proc		4-B EQ (FM)		FM Limiter		MPX Limiter		
3	Outputs To Patch Point Management																		
4	Type Application	Replicate				Out		Out		Out		Out		Out		Out		Out	
Ч	Analog 1 HD Out																		
	Analog 2 ···· HD Out ····																		
	Digital 1 HD Out																		
	Digital 2 HD Out																		
	LIVEWIRE 1 HD Out																		
	LIVEWIRE 2 HD Out																		
	IP Conn 1 HD Out																		
	IP Conn 2 ···· HD Out ····																		
	Stream HD Out																		
1	How loud you are in dBr? Instantaneously you are at 8.30 dBr On I	ast minute Avera	ge you	J are	at (8.09 dBr	You	should be	loud	now!									

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 խսփոփակավասիափոփակակափոփոփոփոկակակակափ -60 - 54 - 48 - 42 - 36 - 30 - 324 - 18 - 12 -33 խսփափակակակափափոկակակակակակակակ 	-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]	44 -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 Pate	ch 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		ckup Sou	
Digital 1	1st Backup ····	🗆 1st Backup		ackup So	
Digital 2		3	3rd Bo	ackup Sou	urce
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) //// -5.6 -50 -5.6 ////////////////////////////////////	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]	փոփովոսկովուփոփոկովոսկոփոփոկոսկոսկոսկի է է էլէւ -54 -48 -42 -36 -30 -24 -18 -12 է 0 փոփոկոսկոսկոսփոփոփոփոփոփոկոսկոսկոսէ է 1 է 1
Stream Output level	X
Application	HD
Auto De-Emphasis	Auto
Output full-scale Reference [dBfs]	-1.00 dBfs
Meter [dBfs]	փափակակափափակավակակափակակակակակակ -54 -48 -42 -36 -30 -24 -18 -12 -6 0 փափակակակակակակակակակակակակակակ

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 Patch 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	Pl	JLSE (Meters	— (D	efault	Custom	1 Cust	rom 2	Custom 3	Custom	4	Ľ	_	- [$] \times$
Dig In [dBfs]	-2.4 -13.9	100-000 C L 10-000 C R	Dig Out [dBfs]	-10	L R	28885		1 1	~	/	VU+		1e-000 1e-001 Peck of 1e 1e-002 Time: 2h09 1e-000	-5: 75.5 kHL	t) - Ref 1e-5-
Ana In [dBfs]	-19.8 -29.4	io -20 0 R	Current PS				10.0k	V/	30k	40x	sóe	60k	1e-004 1e-005 1e-005 -100 -75	ó	75 100
Workspace —		O Routing & L	evels M	lain Process	ing	HD Pr	rocessing		IP Connec	t	Stre	aming	Eme	ergency Pl	ayer
Process In [dBfs]	-2.4		(m/m) m) m) m) m) m) -30 -24 -18 -12 (m/m) m) m) m)	ting Cho	annel	SOUND4 PULSE	- 211 A0001				Undo (Save	Save As	New	About
MPX [kHz]	76.3	10 20 30 4		90 P	reset	dBr - Rock					1	Preset 😒	Compare	Histo	Setup

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

Preset				\times
Save	Save As New Delete Rename Security Import	Export		
март 2018		Preset Log:		
	dBr - Natural			
4 HEF	dBr - Rock Hot			
	dBr - Rock			
4 HEF				
4 REF	dBr - Jazz Hot			
4 REF	dBr - Jozz			
A REF	dBr - Finalizer (Limiters+ Clippers)			
A REF	dBr - Dance Electro			
A REF	dBr - Country			
4 REF	dBr - Classical Purist (3-8 only)			
4 REF				
4 REF				
4 REF				
4 REF	dBr - CHR 1			
4 REF	dBr - BY-PASS			
A REF	dBr - All Program Loud 🔒 📇			
A REF	dBr - All Program 🔒 📇			
A REF	dBr - AC	* III		F.
		Preset Details:		Functions:
		Created On	2018-03-22 17:47:35	✓ 2-Band AGC
		Saved On	2018-03-22 17:48:04	✓ Tone FX
		From Factory	12.0 dBr - Natural	✓ Stereo FX
		3 Bands Freq	60-2030	✓ 3-Band Process
		Matricing	Off	✓ 3-BandLimiter
				✓ EQ
	Sort By: Last Saved Last On Air Name			V EQ HD