



# XT-1

One Pedal, Infinite Guitars

*User Manual (EN)*



"Sim1 - Sound Imprinting' is a registered trademark property of Sim1 Srl. All other product names and images, trademarks and artists names are the property of their respective owners, which are in no way associated or affiliated with Sim1. Product names are used solely for the purpose of describing certain types of tones achievable with Sim1's modeling technology. Use of these names does not imply any cooperation or endorsement".

## ***XT-1: One Pedal, Infinite Guitars!***

Thank you for buying the new XT-1 by SIM1. This is the first guitar profiling system that makes it possible to play your electric guitar with the sound of any other existing guitar in the world.

This is made possible by our proprietary technology “Smart Tone Shaping” (protected by patent) and what we call “Learning procedure”. This procedure allows the SIM1’s XT-1 to shape the sound of the guitar of your dreams around your own guitar sound. The XT-1 does this by matching the tone of your guitar/s (hereafter Source Guitar) and the tone of the guitar you would like to emulate (hereafter Target Guitar).

The Learning Procedure is achieved by recording inside the pedal an ascending chromatic scale starting from the E (6 open string), making a progression of 6 notes per string in 80 seconds (36 notes in total). Read carefully the related chapter at pages 11-17 of this manual for detailed instructions for this procedure.

Since most of guitars in the market have 2/3 pickups, the procedure allows you to choose whether to record 1 or 3 pickups (neck, mid or mid position, bridge). We recommend using a perfect matching among the pickup of your source guitar and that one of the target guitar. In this way the tone emulation will be 100% accurate!

There's nothing in the market with such a reproduced authentic sound, which is the result of years of research. XT1 is the only pedal able to grant to musicians an infinite variety of guitar sounds, without any latency in terms of signal response, and without the need of any invasive item to be placed on your guitar body.

**SIM1’s Team**

## Safety Instructions



In this instruction manual the exclamation point within a triangle means “Caution!”. It is an alert to the user noting possible risks related to the improper use of the device. Please read the



In this instruction manual the lightning within a triangle means “Electrical caution!”. It is an alert to the user for potential risks of electrical shocks related to an improper use of the device.

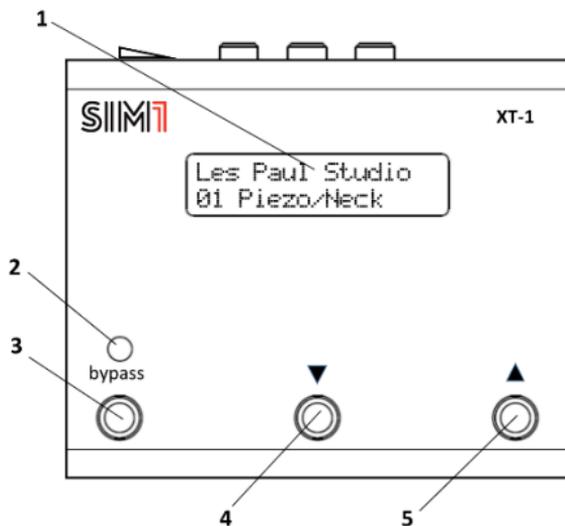
	Before using this device, make sure to read all the instructions manual.
 	Do not open or modify in any way the device or its AC adaptor.
	For safety reasons place the device on the floor while using.
 	Never use or store the device in places that are: <ul style="list-style-type: none"><li>• Subject to extreme temperature (e.g. direct sunlight or near heating/radiators or any appliance which produces heat);</li><li>• Damp places (e.g. baths, washrooms, wet floors);</li><li>• Exposed to rain;</li><li>• Dusty;</li><li>• Subject to high levels of vibrations.</li></ul>
	Do not try to repair the device or replace parts within it. This violation will invalidate the warranty. For any damage or inconvenience please refer to SIM1 srl or an authorized SIM1 distributor/store.
 	Use only the specified AC adaptor, and make sure the line voltage at the installation matches the input voltage specifications.
 	An AC adaptor, different from that one specified in the instruction manual may use a different polarity, or may have a different voltage. Its use might cause damage, malfunction, or electric shock.
 	Avoid damaging power cords and avoid using the unit with damaged power cords. A damaged cord can easily cause an electrical shock or fire hazard.

	<p>This unit, in combination with an amplifier or headphones, may cause permanent hearing loss, when operating for a long period with high volume levels, or with an uncomfortable volume level. If you experience any hearing loss or ear ringing, stop using the device and immediately consult an audiologist.</p>
 	<p>Make sure that liquids of any kind are not spilled on the device. Do not use or place the device near water.</p>
 	<p>Immediately turn off the device and remove the AC Adaptor from the mains power source, and request assistance from a SIM1 Srl or an authorized SIM1 distributor/store, when:</p> <ul style="list-style-type: none"> <li>• The AC Adaptor or its cord are damaged;</li> <li>• Objects or liquids have been spilled into the device;</li> <li>• The device has been exposed to rain or moisture;</li> <li>• The unit does not operate normally or changes in performance in a significant way.</li> </ul>
	<p>An adult should provide supervision during the children's use of the unit.</p>
	<p>Protect the unit from strong impacts. Do not drop it.</p>
 	<p>Unplug the AC Adaptor when not in use for a long period of time. Unplug the AC Adaptor during lightning storms.</p>
	<p>Clean the device only with a damp cloth. Make sure to turn the unit off before cleaning it.</p>
	<p>The device and the AC Adaptor should be positioned where there is adequate ventilation.</p>
 	<p>Never handle the unit or the AC Adaptor with wet hands when plugging into or from the power mains source.</p>
 	<p>Before moving the unit, disconnect the AC Adaptor and all cords coming from external devices.</p>
	<p>Is strongly recommended to use only accessories specified by the manufacturer.</p>
	<p>This Product complies with the requirements of European Directive 2014/30/UE</p>

## Product Specifications

Total pre-sets.....	30
Guitar Profiles pre-loaded.....	12
AD Conversion.....	32 bit
DA Conversion.....	32 bit
Sample Rate.....	48/96 kHz
Input Impedance.....	1 M $\Omega$
Output Impedance (Standard Output-OUT).....	680 $\Omega$
Output Impedance (Balanced Output-BAL).....	10 k $\Omega$
Recommended Load Impedance.....	10 K $\Omega$ or Greater
Signal To Noise ratio.....	> 104 dB
Controls.....	On/Off switch, Up & Down switches, Bypass switch
USB Port.....	2.0
Indicators.....	Lcd Display (2 lines, 16 typefaces each)
Connectors.....	¼ inch jacks (Input/Output/Balanced Output)
Connector AC Adaptor Jack .....	5.5*2.1mm
Power Supply.....	AC Adaptor 9V-1A - Negative inner - sold separately
Dimensions.....	147 (W) 125 (D) 47 (H) mm
Weight.....	750 g.
Accessories.....	User's Manual
Options.....	AC Adaptor, Wi-Fi connection key

## Panel description



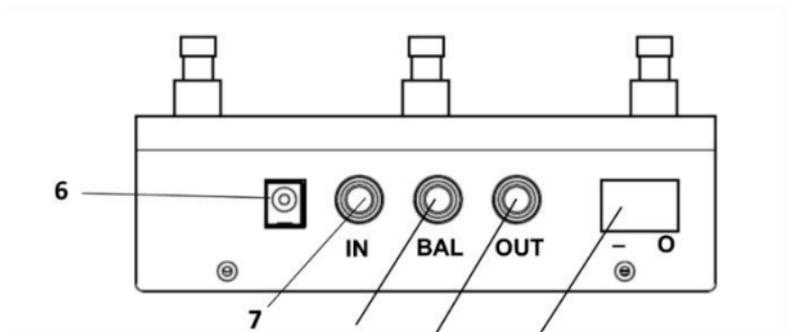
**1. LED Display:** Backlit display, consists of two lines of 16 characters each. It shows all the information concerning the working procedures of XT-1 and the guitars tones when in use (Guitar Brand and Model, Bench number, Pick Up position).

**2. Check Indicator:** When the red light is on, it means that the device is in the True Bypass mode.

**3. Bypass Switch:** Press this button to activate the True Bypass mode. The display will show information about the source guitar, the one configured with the target guitar in the channel in use.

**4. Down Switch:** Press this button to scroll down the guitar tones configured in the XT-1 device.

**5. Up Switch:** Press this button to scroll up the guitar tones configured in the XT-1 device.



**6. AC Adaptor Jack:** An AC Adaptor (sold separately) must be connected to this jack in order to use XT-1. For more information see the Specifications manual section.

**7. Input Jack:** This jack accepts input signals coming from a guitar

**8. Balanced Output Jack:** This output jack must be connected to an amplifier for acoustic guitars or directly to the PA (i.e. mixer).

**9. Output Jack:** This output jack must be connected to an amplifier for electric guitar or other effect devices (i.e. overdrive/distortion).

**10. On/Off Switch:** Move this button to the «On» position, when the device is connected to the Ac Adaptor to the power unit, to switch the XT-1 on.

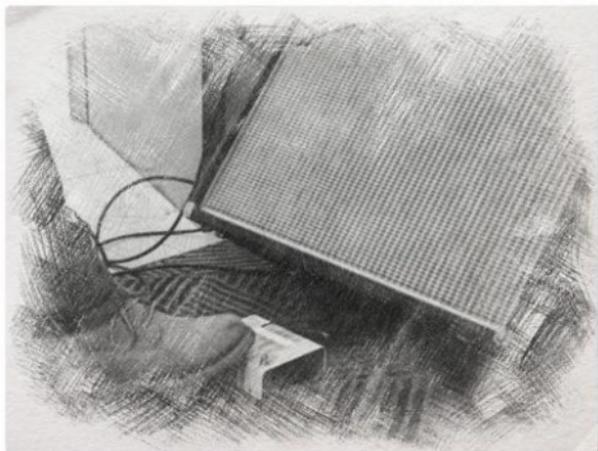
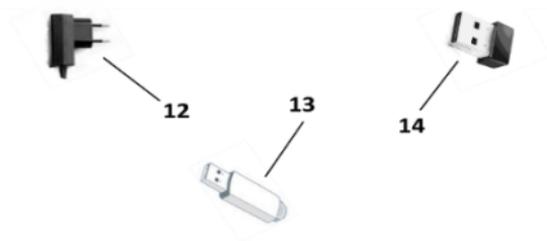
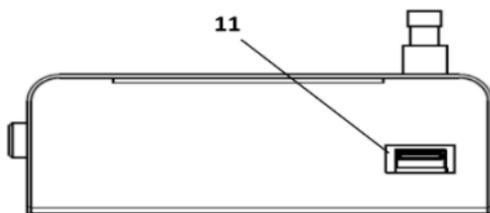
**11. USB Port:** Use the USB 2.0 Port to make the backup of the guitar sounds included in the device, with the USB Key (13), or to synchronize the device through the Configuration Software.

#### **Accessories not included**

**12. Power Supply:** 9V-1A Negative inner

**13. USB Storage stick:** To store a backup of the sounds on the device transport it to the configurator, make your own patch and store it back to the pedal.

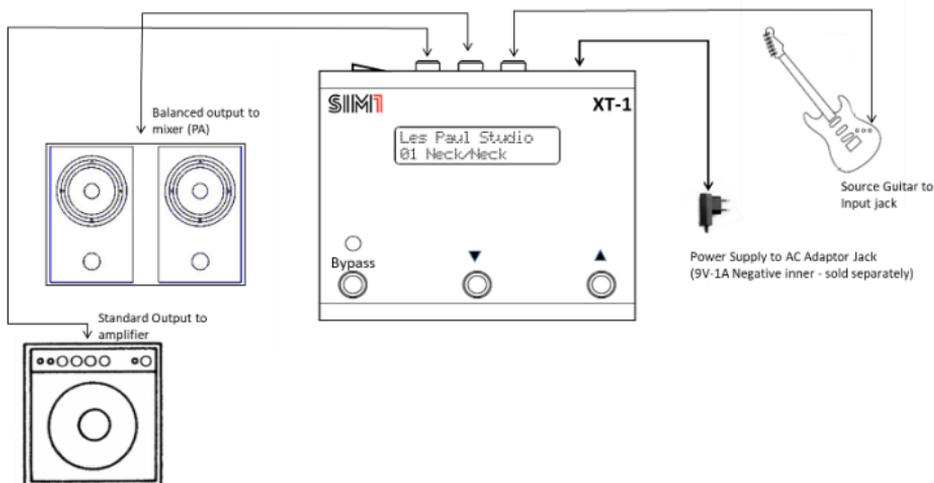
**14. Wi Fi USB Key:** To connect XT-1 to a mobile phone/tablet and synchronize the device to the app for Android/IOS.



## Connections

XT-1 is a floor standing device. It's recommended to place it as the very first pedal of your effect chain.

## Connections



Place XT-1 on the floor and make sure that the on/off switch (10) is in the off position (O), then connect the Power Supply 9V-1A (sold separately) to the electric socket and to the XT-1.

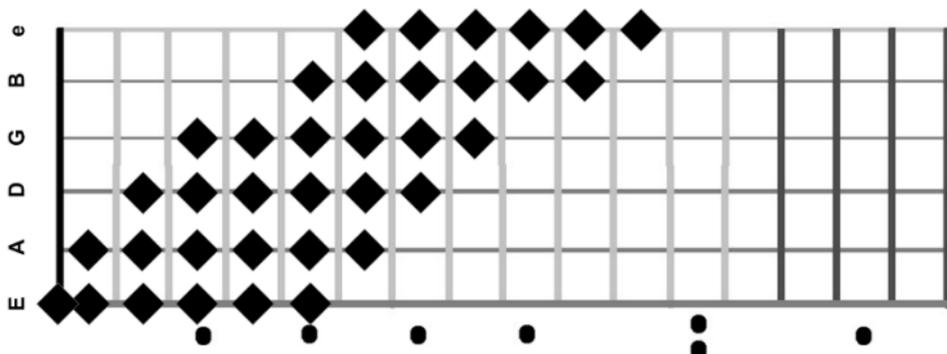
Before connecting or disconnecting any device to XT-1 always make sure that the on/off switch (10) is in the off position (O) and that the volume control in your system are set to the minimum. This will help to prevent any damage to system components.

The BALANCED OUTPUT (8), connected directly to the mixer of the PA, is useful when playing, as a target instrument, the sound of acoustic guitars. In this way the result will be more realistic and accurate. The STANDARD OUTPUT (9) must be connected to the amplifier. Other effects can be connected in cascade, both through the BALANCED OUTPUT (8) or through the STANDARD OUTPUT (9).

## **Learning Procedure N.1: “Shop Mode” – Record the sound of a Source Guitar & Reset the target sounds to those of Factory Default Settings**

The “Learning Procedure” must be used for the XT-1 to recognize the sound of your guitar (Source Guitar) and to make it possible for the emulation of all target guitars included in the device. The “Shop Mode” allows you to record 1 or 3 pickup positions of the Source Guitar, and automatically assigns this Guitar to all pre-sets of XT-1. At the same time all pre-sets sounds will be restored into those ones of Factory Default.

1. Connect the Source Guitar to the Input Jack (7) of XT-1 and the Output Jack (8/9) to the amplifier/Mixer as described in the “Connections Section”;
2. Switch the pedal On (10), and wait until the system finishes to load and the name of the guitar placed in the first channel, it will appear in the display (1);
3. Make sure your Source Guitar is in tune;
4. Move the Pickup selector to the Neck position;
5. Hold simultaneously the three Switches of the pedal (3,4,5) for 5 seconds. The system will ask you the number of pickups you would like to record (1 or 3).
6. Press the “Down Switch” (4) to record only 1 pickup or “Up Switch” (5) to record 3 pickups. Then a countdown will start on the display (*5 seconds to start Learning PU Neck*);
7. When the countdown is finished the device will start recording (Display: *Learning 1/80...2/80...3/80 - Hold Up To Abort*). Play an ascending chromatic scale starting from the E (6 open string), making a progression of 6 notes per string (80 seconds to make 36 notes in total, 2 seconds per note is recommended) – see the tab below.



### ***Second option: Source Guitar with more than 1 pickup sound***

**15.** In case your guitar has more than one pickup, move the selector to the Neck Pickup position;

Then make the chromatic scale as described at point 7 (fig. 1).

**16.** After 80 seconds of recording the system will make a “quality check”, based on the good execution of the chromatic scale (the system controls if each of the requested notes have been played and their adequate duration). Then you will be asked to save, or not, the recording

**17.** If you are not satisfied with the quality rating, then press the “Down switch” (4) and repeat the chromatic scale (point 7).

**18.** Repeat the procedure described at point 7 for the recording of the Mid Pickup position (Display: *5 seconds to start Learning PU Mid – then: Recording 1/80...2/80...3/80 - Hold DOWN To Abort*);

**19.** Repeat the procedure described at point 7 for the Bridge Pickup recording as well. (Display: *5 seconds to start Learning PU Bridge – then: Recording 1/80...2/80...3/80 - Hold DOWN To Abort*);

**20.** When the recording procedure of the three Pickup positions is finished, the system will analyse the Source Guitar sounds (Display: *Computing Progress 00%...100%*)

**21.** At the end of the Computing Process, press the “Up switch” (5) again to definitely end the Learning procedure.

**22.** At this point the Guitar tones included in XT-1 will be automatically associated to the corresponding pickup of your guitar and will be modelled around the sound of it. Scroll up and down the Switch selectors (4,5) to test the variety of sounds.

**23.** For any reason, during each Pickup recording, it is possible to stop the procedure, just by holding for 2 seconds the Down Switch (4).

*With the Shop Mode XT-1 creates 3 Source Guitars (Guit1, Guit2 Guit3), each of them corresponding to a different Pickup. The system will automatically assign: - the Source Guit1 (Neck Pickup) to all the Target Guitars with the emulation of a Neck/Piezo Pickup sound or Mic recorded sound;*

- the Source Guit2 (Mid Pickup) to all the Target Guitars with the emulation of a Mid or Mid Position Pick Up sound;

- the Source Guit3 (Bridge Pickup) to all the Target Guitars with the emulation of a Bridge Pickup sound;

For each Target Guitar Profile, while performing, is recommended to switch the Pickup position of the Source Guitar to that one suggested on the display. This allows to reach a sound as much close as possible to that one of the original Target Guitar.

**Kindly note that with this procedure all the other source guitars previously stored in the pedal will be automatically cancelled.**

### **Learning Procedure N.2 “Learn&Play Mode” - Record the sound of a Source Guitar**

The “Learn&Play Mode” allows to record 1 or 3 pickup positions of the Source Guitar, and automatically assigns this Guitar to all pre-sets of XT-1. In this case the pre-sets sounds won’t be changed into those ones of Factory Default.

1. Connect the Source Guitar to the Input Jack (7) of XT-1 and the Output Jack (8/9) to the amplifier/Mixer as described in the “Connections Section”;
2. Switch the pedal on (10), and wait until the system will finish to load and the name of the guitar placed in the first channel will appear in the display (1);
3. Make sure your Source Guitar is in tune;
4. Switch the pickup of your Source Guitar to the – Neck Pick Up;
5. Hold simultaneously the “bypass” and “down” switches of the pedal (3,4) for 5 seconds. The system will ask you the number of pickups you would like to record (1-2 or 3).
6. Press the “Down Switch” to record only 1 pickup or “Up Switch” to record 3 pickups. Then a countdown will start on the display (5 seconds to start learning PU Neck);
7. Repeat the procedure from point 8. to point 14. (Source Guitar with 1 pickup), or from point 15. to point 23., of the “Shop mode”, to complete the learning procedure;

**8.** Now the source guitars in use created will be named with a progressive number (i.e. Guit4, Guit5, Guit6). The previous source guitars are still stored into the device and they can be recalled through the Configuration Software or through the App for IOS or Android.

### **Learning Procedure N.3 “Add-Source Mode” - Record and Store one pick-up at a time as Source Guitar**

The “Learn&Play Mode” allows to record 1 pickup positions of the Source Guitar and store it to XT-1. In this case the target sounds on the pedal won’t be automatically assigned to this Source Guitar. You should do it manually using the “Configurator Software” or the App for IOS and Android.

- 1.** Connect the Source Guitar to the Input Jack (7) of XT-1 and the Output Jack (8/9) to the amplifier/Mixer as described in the “Connections Section”;
- 2.** Switch the pedal on (10), and wait until the system will finish to load and the name of the guitar placed in the first channel will appear in the display (1);
- 3.** Make sure your Source Guitar is in tune;
- 4.** Switch the pickup of your Source Guitar to that one you would like to store in XT-1;
- 5.** Hold simultaneously the “up” and “down” switches of the pedal (4,5) for 5 seconds.
- 6.** A countdown will start on the display (*2 seconds to start Learning*);
- 7.** Repeat the procedure of point 7. of the “Shop Mode” to complete the learning procedure;
- 8.** Now the new created Source Guitar will be named with a progressive number, depending on the amount of Source Guitars present in the device (i.e. Guit4, in case Guit1, Guit2, Guit3 were already stored).

## **True Bypass**

When the True bypass mode is activated the check indicator (2) will light in red colour and the writing “True Bypass” will appear on the Display. Now the signal is not processed in any way, and the sound will be the original one of the Source Guitar. The second line of the display shows the guitar/pick up you are supposed to play on the Source Guitar.

Pressing again the Bypass switch, the red light of the check indicator will turn off and the sound will shift to that one of the target guitar in use.

## **USB Port**

XT-1 is equipped with an USB Port 2.0, which must be used with the USB stick to transfer the sounds (both source guitars and target guitars) from XT-1 to the Configurator Software, make your own set up, and return them back to XT-1 to make the upgrade of the device.

## **Back Up procedure**

Insert the USB key (13) in the USB port (11), then hold for 5 seconds the Downs Switch (4). At this point on the display will appear “Back Up in progress”. Leave the USB Key inserted into unit until all the data will be loaded to the stick, and “Done!” will appear on the display.

Now it's possible to extract the stick and to insert it to the PC/MAC to import the Back Up of your XT-1 on the Configurator Software.

## **Upgrade procedure**

Once all data have been saved from the Configurator Software to the USB stick, insert the key (13) in the USB port (11), then hold for 5 seconds the Up Switch (5). At this point on the display will appear “Upgrade in progress”. Leave the USB Key inserted into the unit until all the data is forwarded to XT-1, and “Done!” will appear on the display. Now it's possible to extract the stick.

### Reset Procedure

To reset the device to the factory default settings you must hold simultaneously the Bypass and Up Switches (3-4) for 5 seconds. You will be asked to confirm this procedure: press Up Switch (5) to definitively reset, Down Switch (4) if you don't want to reset. After the reset procedure all the Source and Target Guitars inside XT-1 will be restored to those of factory default setting. It's strongly suggested to make a backup before making this procedure, in order not to definitively lose Guitars (Source or Target).

### Serial Number Code

To see the Serial Number Code, a special code different for all devices, hold for 5 seconds the Bypass Switch (3), and it will appear on the display. This code is useful to register your device in the SIM1 Web-Store or App. This procedure will allow you to use in your XT.1 pedal the new sounds you will buy, or you will download for free from the community. Please note that if you do not input in a correct way the Serial Number Code on the Web/App, the downloaded sounds will not be correctly installed in your XT-1 device and they will not work properly.

**Designed & hand-built in Italy using  
high quality components**

*Graphics or painting imperfections are due to  
handcraft production*



**SIM1 srl**

Legal Address: Via Ca' Rossa 54, 47121 Forlì (FC) - Italy  
Operational Headquarter: Via Balzella 41/D, 47122 Forlì (FC) - Italy  
[www.sim-one.it](http://www.sim-one.it) [info@sim-one.it](mailto:info@sim-one.it)