

# LIVEtouch20

## DIGITAL MIXING CONSOLE

# 1 - Safety information

## Important safety information



This product contains non-isolated electrical components. Do not undertake any maintenance operation when it is switched on as it may result in electric shock.



This unit is intended for indoor use only. Do not use it in a wet, or extremely cold/hot locations. Failure to follow these safety instructions could result in fire, electric shock, injury, or damage to this product or other property.



Any maintenance procedure must be performed by a CONTEST authorised technical service. Basic cleaning operations must roughly follow our safety instructions.

## Symbols used



This symbol signals an important safety precaution.



The CAUTION symbol signals a risk of product deterioration.



The WARNING symbol signals a risk to the user's physical integrity. The product may also be damaged.

## Instructions and recommendations

### 1 - Please read carefully :

We strongly recommend to read carefully and understand the safety instructions before attempting to operate this unit.

### 2 - Please keep this manual :

We strongly recommend to keep this manual with the unit for future reference.

### 3 - Operate carefully this product :

We strongly recommend to take into consideration every safety instruction.

### 4 - Follow the instructions:

Please carefully follow each safety instruction to avoid any physical harm or property damage.

### 5 - Avoid water and wet locations :

Do not use this product in rain, or near washbasins or other wet locations.

### 6 - Installation :

We strongly encourage you to only use a fixation system or support recommended by the manufacturer or supplied with this product. Carefully follow the installation instructions and use the adequate tools.

Always ensure this unit is firmly fixed to avoid vibration and slipping while operating as it may result in physical injury.

### 7 - Ceiling or wall installation :

Please contact your local dealer before attempting any ceiling or wall installation.

### 8 - Ventilation :

The cooling vents ensure a safe use of this product, and avoid any overheating risk. Do not obstruct or cover these vents as it may result in overheating and potential physical injury or product damage. This product should never be operated in a closed non-ventilated area such as a flight case or a rack, unless cooling vents are provided for the purpose.

### 9 - Heat exposure :

Sustained contact or proximity with warm surfaces may cause overheating and product damages. Please keep this product away from any heat source such as a heaters, amplifiers, hot plates, etc...

**CAUTION**  
**RISK OF ELECTRIC SHOCK**  
**DO NOT OPEN**

**WARNING :** This unit contains no user-serviceable parts. Do not open the housing or attempt any maintenance by yourself. In the unlikely even your unit may require service, please contact your nearest dealer.  
 In order to avoid any electrical malfunction, please do not use any multi-socket, power cord extension or connecting system without making sure they are perfectly isolated and present no defect.

### Sound levels

Our audio solutions deliver important sound pressure levels (SPL) that can be harmful to human health when exposed during long periods. Please do not stay in close proximity of operating speakers.

### Recycling your device

- As HITMUSIC is really involved in the environmental cause, we only commercialise clean, ROHS compliant products.
- When this product reaches its end of life, take it to a collection point designated by local authorities. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

### 10 - Electric power supply :

This product can only be operated according to a very specific voltage. These information are specified on the label located at the rear of the product.

### 11 - Power cords protection:

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at lugs, convenience receptacles and the point where they exit from the fixture.

### 12 - Cleaning precautions :

Unplug the product before attempting any cleaning operation. This product should be cleaned only with accessories recommended by the manufacturer. Use a damp cloth to clean the surface. Do not wash this product.

### 13 - Long periods of non use :

Disconnect the unit's main power during long periods of non use.

### 14 - Liquids or objects penetration :

Do not let any object penetrate this product as it may result in electric shock or fire. Never spill any liquid on this product as it may infiltrate the electronic components and result in electric shock or fire.

### 15 - This product should be serviced when :

- Please contact the qualified service personnel if :
- The power cord or the plug has been damaged.
  - Objects have fallen or liquid has been spilled into the appliance.
  - The appliance has been exposed to rain or water.
  - The product does not appear to operate normally.
  - The product has been damaged.

### 16 - Inspection/maintenance :

Please do not attempt any inspection or maintenance by yourself. Refer all servicing to qualified personnel.

### 17 - Operating environment :

Ambient temperature and humidity: +5 - +35°C, relative humidity must be less than 85% (when cooling vents are not obstructed).

Do not operate this product in a non-ventilated, very humid or warm place.

## 2 - General and technical data

### Features

12 microphone input + 2 stereo inputs
1 S/PDIF input/output and 1 AES/EBU output
4 mono busses / 5 stereo busses / 1 monitor bus
8 assignable XLR outputs
1 stereo monitor output and 1 headphone output
1 x 7" touch screen
8 effect modules
2 USB plugs for song recording, song playback and scene backups

### Technical data

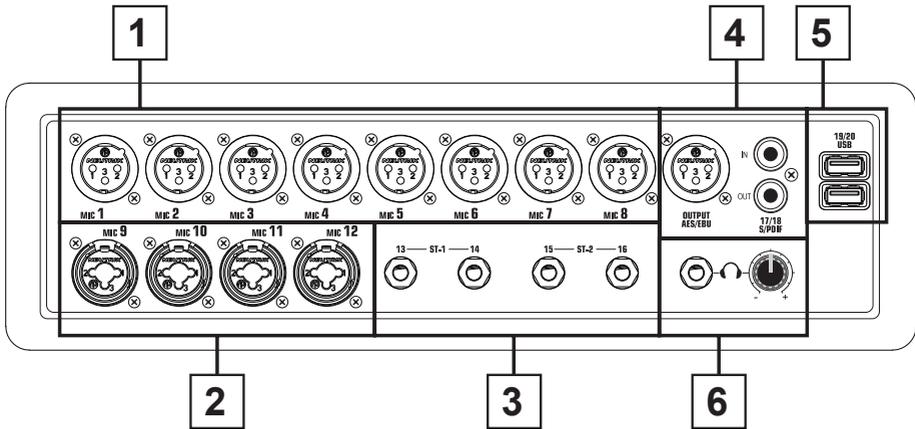
Inputs	12 microphones (4 Combo), 2 stereo, S/PDIF and USB
Input channel functions	Phase, Delay, high pass filter, 4 band parametric equalizer, noise gate, compressor, pan, effects
Outputs	8 assignable XLR, AES/EBU, S/PDIF and headphone
Internal signal generator	White, sinusoidal and white noise
Phantom power	48V independently activatable on each channel
USB Features	Play and record songs, system update, scene backup and external network card
Screen	7-inch, 1024 x 600 pixel, high definition touchscreen
AD/DA	192 KHz/24 bits max.
Sampling frequency	48 KHz / 44.1 KHz
DSP	SHARC ADI 40-bit floating point processor, 4th generation, 450M
Effects	8 modules: 2 Reverbs, 2 Modulation, 2 Delay and 2 x15 bands graphic equalizers
Système	Custom Android
Network	Via 1 external USB module (supplied)
Remote control	Via 1 iPad application
Power supply	100-240V 50/60Hz > DC12V
Size	445 x 325 x 100 mm
Weight	5.3 Kg

### Packaging content

The LIVEtouch20 console
1 external power supply
1 IEC power cord
1 WiFi dongle
The user guide

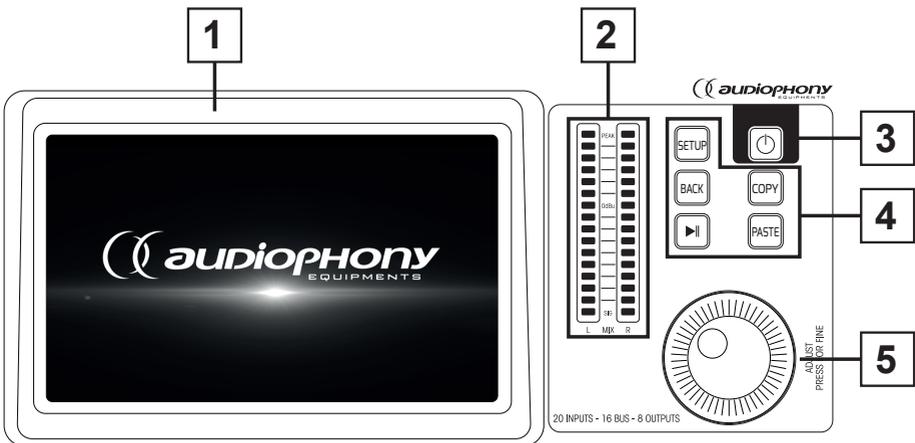
### 3 - Overview of the unit

#### 3-1 Front panel connection system



- 1 - 8 XLR mic inputs
- 2 - 4 combo mic inputs
- 3 - 2 jack stereo inputs
- 4 - S/PDIF input/output and AES/EBU output connectors
- 5 - 2 USB inputs
- 6 - Pre-listening output with level adjustment

#### 3-2 Main module

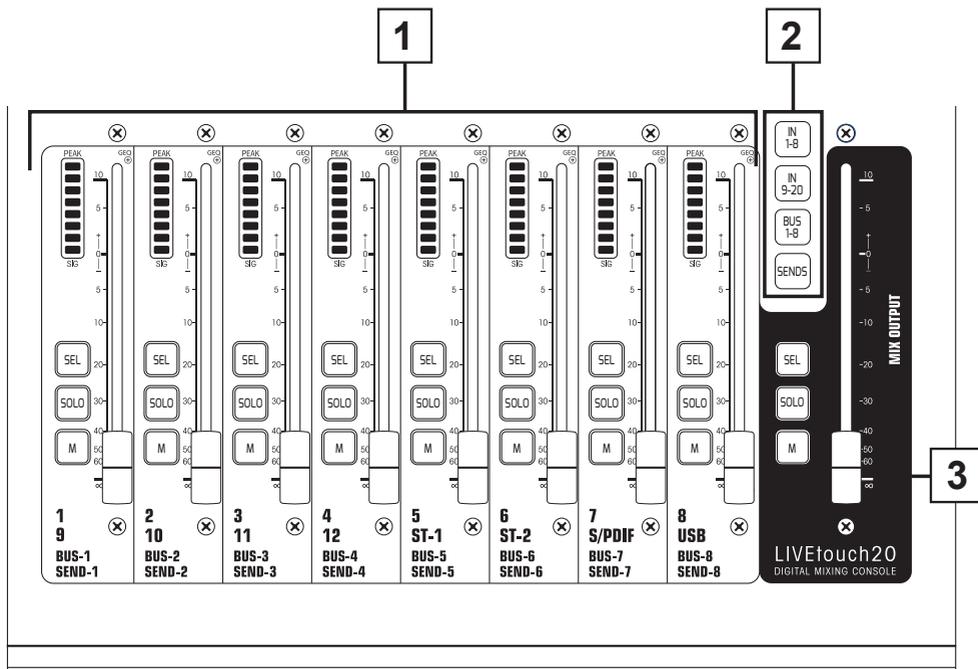


**1 - 7-inch touch screen****2 - 6 bands master vu-meter****3 - 5 control buttons**

- **SETUP** : Provides access to system settings
- **BACK** : Lets you exit the system menu
- **COPY** and **PASTE** : Allows to propagate parameters from one channel to another
- **PLAY/PAUSE** : Manage USB source playback

**4 - POWER button**

- Press and hold for more than 3 seconds to turn the console off or on.
- Press this button for 1 second to lock all controls

**5 - Adjustment knob****3-3 Faders section****1 - Channels faders**

- This section includes the 8-band channel VU meter, SEL (channel selection), SOLO (channel preview), M (channel mute and bus assignment) and 100mm motorized faders.

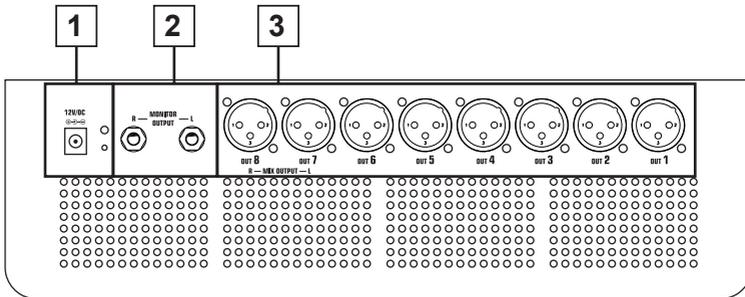
**2 - Pages selectors**

- "IN 1-8" button : Selects mono channels 1 to 8.
- "IN 9-20" button : Selects mono channels 9 to 12, stereo channels 1 and 2, S/PDIF input and USB input
- "BUS 1-8" button : Selects mono outputs 1 to 6 and stereo outputs 7 and 8.
- "SENDS" button: Used to select, for each bus, the channels that will be injected to outputs 1 to 8.

**3 - MASTER section**

- This section allows you to adjust the level of outputs 7 and 8.

### 3-4 Rear panel



**1 - Power supply input :** DC12V - 4,17A

**2 - Monitor output**

- 6.35 Jack stereo output.

**3 - 1 to 8 outputs**

- Balanced outputs on XLR plugs.

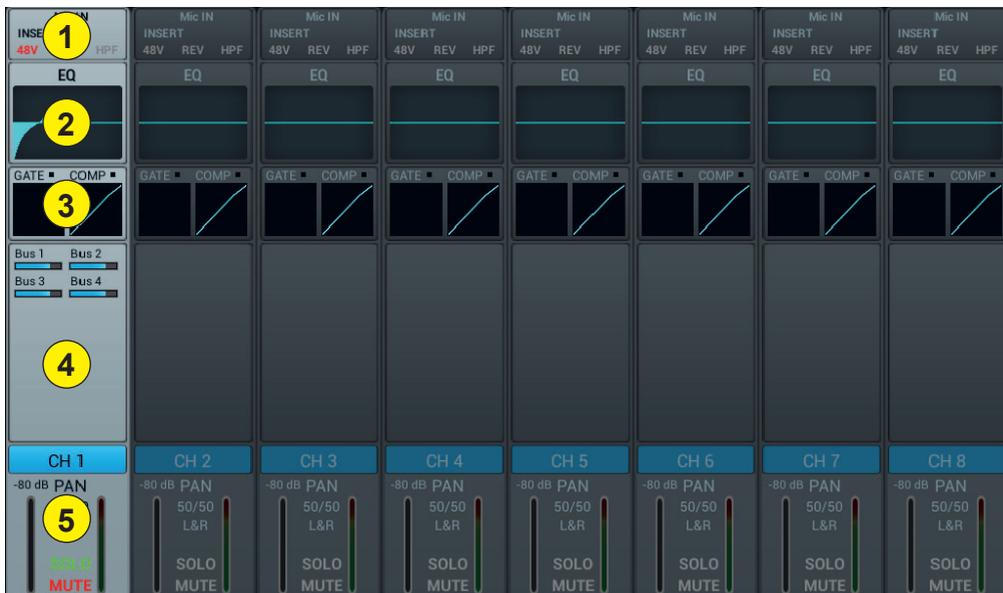
## 4 - Advanced Features

### 4-1 Inputs channels

LIVEtouch20 console features 12 mono inputs, 2 analog stereo channels, 1 S/PDIF input and 1 USB input.

#### 4-1-1 Mic inputs

A MIC input channel contains five individual modules: Input stage, Equalizer, Dynamic, Send to bus and Output stage. A simple click on a module will bring up a subpage with other options. Subpages can be closed with the red "close" button in the upper right cornerB.



#### 1 - Input Stage

Indicates the status of 48V phantom power, phase, delay, high pass filter and effects.

#### 2 - EQ

Displays the current equalization and allows access to the settings.

#### 3 - Dynamics

Displays compressor and noise gate status and provides access to settings.

#### 4 - Busses sends

Displays the buses to which the slice is sent and allows access to the bus selection.

#### 5 - Output

Displays channel name, pan setting, preview (SOLO), MUTE and channel level .

## 4-1-2 Subpage of the mono channel input stage

**1 - Alimentation fantôme 48V**

Active ou désactive l'alimentation fantôme sur le canal en cours.

**2 - Channels selector**

Allows you to switch from one channel to another while remaining on the same page.

**3 - Rev**

Enables phase reversal. By default phase reversal is inactive.

**4 - Delay**

Enables Delay, by default Delay is disabled. The time can be set either via the setting wheel or directly on the display. For fine adjustment, hold down the knob.  
The time range is from 0 ms to 200 ms.

**5 - HPF**

Enable the high pass filter, by default the high pass filter is disabled. The frequency can be set either via the setting wheel or directly on the display. For fine adjustment, hold down the knob.  
Frequency is adjustable from 16 Hz to 400 Hz, default is 16 Hz.

**6 - Insert**

Press one of the buttons on the effect module to insert it before equalizing the channels. Each effect module can only be inserted in one place and the input channels allow only one effect module to be used. When a selected module is used in another channel or bus, a pop-up window appears: "The module can only be used once and is already used by xxx. Do you want to use the force module now? Yes / No".

To change the effect settings, press the SETUP button, then press FX and click a module to open a dialog box for the effect.

## 4-1-3 Parametric equalizer sub-page

**1 - Channels selector**

Allows you to switch from one channel to another while remaining on the same page.

**2 - Bypass**

Enables or disables the equalizer on the current channel. By default the equalizer is active.

**3 - Flat**

Allows the equalizer to be flat again. This action is irreversible, the settings will be lost.

**4 - 4-band EQ graph**

The four points on the curve indicate the position of each parametric equalizer. You can select each point to adjust the equalization. When a point is selected you can also adjust its equalization via insert 6 (frequency, gain and Q-band width).

**5 - Curve point selection keys**

Use these keys to move from one point to another.

**6 - Réglages de chaque point**

These three potentiometers allow the adjustment of the points via the main encoder:

-**Gain** : Adjustable from -18dB to +18dB.

-**Frequency** : Each band can be set to a value between 20 Hz and 20 kHz. The default values are : HF 4kHz, HMF 1kHz, LMF 200 Hz, LF 60Hz. The terms HF, HMF, LMF and LF refer only to the initial band setting; there are no restrictions in the equalizer band setting, so that after the setting, LF may actually be at the top of the frequency range.

-**Q** : allows you to adjust the bandwidth from 0.5 (wide) to 10.0 (narrow). The default value is 0.5.

**7 - Library**

The library allows you to save and load the user's EQ settings. Click the drop-down menu and select a library entry from the list to load its settings. Click the "Save" button and select the desired library location (1 - 16) from the list to save the current equalizer settings. A virtual keyboard will appear on the screen to enter a name for the setting. Finally, click "confirm" to save the setting or "cancel" to cancel.

## 4-1-4 Dynamics sub-page

**1 - Channels selector**

Allows you to switch from one channel to another while remaining on the same page.

**2 - Side chain**

This function allows you to use the signal from another channel to control the compression of the selected channel. This can be useful when channel groups are used for a single instrument (for example, drums) to ensure consistency of compression of all channels within the group. Click the drop-down button and select the channel to use as the "Side chain" to control the active channel. The selection also allows you to switch between Pre and Post equalization modes.

**3 - Gate**

**IN** : Enables the Gate to be activated. It is inactive by default.

**Curve** : The curve is divided into 3 parts - Attack (left), Hold (middle) and Release (right).

The threshold is indicated on the Y axis while the X axis indicates the relative time for each section.

**Settings parameters** : The curve is divided into 3 parts - Attack (left), Hold (middle) and Release (right).

The threshold is indicated on the Y axis while the X axis indicates the relative time for each section.

**Threshold** : The threshold varies from -80 dB to 0 dB with default -80dB. Any signal below the threshold will be muted, so that the signal level must exceed the threshold to pass the noise gate.

**Hold** : (hold time) : From 2 ms to 2000 ms with default 2 ms.

**Attack** : (attack time) : Range 0.5 ms to 100 ms, default 3 ms.

**Release** : (temps de relâchement) : peut être ajusté de 2 ms à 2000 ms, par défaut 350 ms, ce qui est compatible avec la plupart des sources sonores.

**Depth** : (release time) : can be adjusted from 2 ms to 2000 ms, default 350 ms, which is compatible with most sound sources.

#### 4 - Compressor

**IN** : Activates the compressor. It is inactive by default.

**Courbe** : The curve shows the gain relationship between the input and output signals. The curve is divided into two parts - below and above the threshold value.

While any signal below Threshold will pass the compressor virtually unchanged, Ratio is applied to signals exceeding the Threshold value. Therefore, these signals are attenuated (for a ratio other than 1:1), by observing the Attack and Release settings. The gain allows the "Make-up" gain to reduce the output volume of the signal after compression.

**Parameter adjustment** : Adjust the compressor by sliding the slider, or by using the knob on the control panel (fine adjustment can be activated by holding the knob down).

**Threshold** : Changes the compressor threshold in the range -80 dB to 0 dB. The default value is -20 dB. Any signal below the threshold will not be compressed. Signals above the Threshold are compressed by applying the Ratio and observing the attack and release time settings.

**Ratio** : (compression ratio) : can be set between 1.0 and 20.0, default is 1.0

**Attack** : (attack time) : Range 0.5 ms to 100 ms, default 25 ms.

**Release** : (release time) : Adjustable from 20 ms to 5 s, the default value is 350 ms, i.e. compatible with most sound sources.

**Gain** : To compensate the compression, the range is -12 dB to +12 dB, the default value is 0 dB.

#### 5 - Library

The library allows the user's dynamic settings to be saved and loaded. Click the drop-down menu and select a library entry from the list to load its settings. Click the "Save" button and select the desired library location (1 - 16) from the list to save the current dynamic settings. A virtual keyboard will appear on the screen to enter a name for the current setting. Finally, click "confirm" to save the setting or "cancel" to cancel.

#### 6 - Bypass

Deactivates dynamic settings

#### 4-1-5 Bus Send sub-page

Each input channel can send signals to 4 mono buses (1-4), 2 stereo buses (5-8 including L/R master).



#### 1 - Channels selector

Allows you to switch from one channel to another while remaining on the same page.

#### 2 - Activate sending to buses

Press a bus button to send the active channel to it, press again to disable sending.

#### 3 - Pre/PostFader

Switching between pre- and post-fader sent to a bus. The pre-fader does not include the gain value of the fader, which can be useful for effect sends or monitoring. The default value is pre-fader.

#### 4 - Pan

Controls panning in a stereo bus. The default value is 50|50 (middle). The PAN value can be changed by dragging the slider or turning the adjustment dial. Press the numeric parameter control twice to return to the default value.

#### 5 - Sending level to buses

Controls the level at which the signal is sent to the selected bus. This can be changed by moving the cursor on the screen or by using the physical fader.

## 4-1-6 Output stage sub-page

Here you can set the pan and level of the Master as well as the Solo / Mute.



### 1 - Channels selector

Allows you to switch from one channel to another while remaining on the same page.

### 2 - Panoramique

Controls the panning of the Master output. The default value is 50/50 (middle). The PAN value can be changed by the encoder on the screen or by turning the control dial. Press the numerical control of the setting twice to reset the setting to its default value.

### 3 - Solo

This is a copy of the SOLO hardware button on the front panel. Press to enable or disable the signal sent to the solo monitor bus.

### 4 - Mute

Like Solo, it is a copy of the M button on the front panel. Press to mute or not the channel, which will mute or mute all pre- and post-fader sends from the active channel to all buses, including the L/R Master.

### 5 - Fader

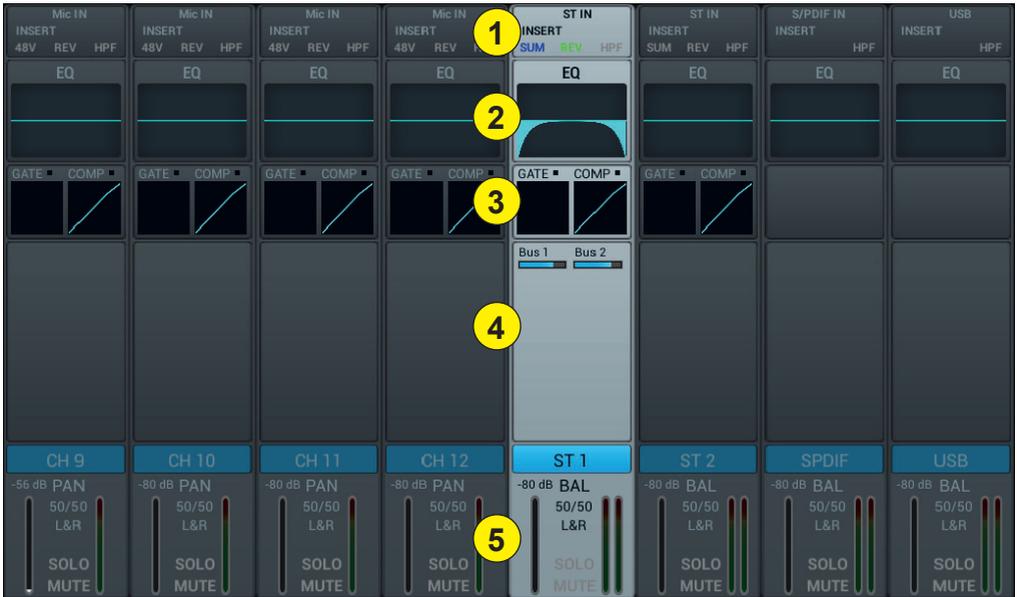
This is a copy of the physical fader of the selected channel. You can change the fader on the screen and the physical fader will follow accordingly. Press the numerical control of the setting twice to reset the setting to its default value.

### 6 - Vu-meter

This displays the pre-fader level of the signal, so regardless of the fader setting, the signal will be displayed here if it is present.

#### 4-1-7 Stereo inputs

Like the MIC channels, the two stereo inputs also include five modules: Input, equalizer, dynamic, bus sending and output. A simple click on a module will bring up a subpage with other options. The subpages can be closed with the red "close" button in the upper right corner.



##### 1 - Input stage

Indicates the status of the phase, delay, high pass filter and effects.

##### 2 - EQ

Displays the current equalization and allows access to the settings.

##### 3 - Dynamics

isplays compressor and gate status and provides access to settings.

##### 4 - Buses sends

Displays the buses to which the channel is sent and provides access to the bus selection.

##### 5 - Output stage

Displays channel name, pan setting, preview (SOLO), MUTE and channel level.

## 4-1-8 Stereo inputs sub-page

**1 - Channels selector**

Allows you to switch from one channel to another while remaining on the same page.

**2 - SUM**

Sum the left and right inputs, so that both sides of the stereo channel will contain the same signal (mono). This can also be used to copy the signal to both channels if only one side of the stereo signal is connected.

**3 - REV**

The phase reverses the left side of your stereo signal. In combination with SUM, this can be useful to cancel the stereo medium, which usually contains the voice of a recording, and create a simple karaoke effect.

**4 - Trim**

Allows digital amplification or attenuation of the input signal. Press IN to activate, the default value is disabled. Adjust the trim on the touch screen or use the adjustment dial (fine adjustment can be activated by pressing and holding the dial). Gain can be adjusted from -20 dB to 20 dB with 0dB as default.

**5 - HPF**

Enable the high pass filter, by default the high pass filter is disabled. The frequency can be set either via the setting wheel or directly on the display. For fine adjustment, hold down the knob. The frequency is adjustable from 16 Hz to 400 Hz, the default value is 16 Hz.

**6 - Insert**

Press one of the buttons on the effect module to insert it before equalizing the channels. Each effect module can only be inserted in one place and the input channels allow only one effect module to be used. When a selected module is used in another channel or bus, a pop-up window appears: "The module can only be used once and is already used by xxx. Do you want to use the force module now? Yes / No".

To change the effect settings, press the SETUP button, then press FX and click a module to open a dialog box for the effect.

#### 4-1-9 Parametric equalizer sub-page

This page is the same as for MIC channels. All settings will be applied to both channels of the stereo signal.

#### 4-1-10 Dynamics sub-page

For ST1 and ST2, this page is the same as for MIC channels, with all settings applied to both channels of the stereo signal. For S/PDIF and USB channels, there is no dynamic section.

#### 4-1-11 Bus Send sub-page

For ST1 and ST2, this page is the same as for the MIC channel. For S/PDIF and USB Sending channels is limited to 5-8 stereo and Master LR buses. For mono buses, the sum on both sides of the stereo channel is actually sent to the bus. For stereo and Master LR buses, a scale replaces the Panning : the center (50|50) of the BAL will send the left and right parts of the stereo channel to the corresponding left and right parts of the Bus. Any other setting will attenuate one side of the stereo channel, for example (100|0) only sends the left side of the stereo channel to the left side of the bus, the right side being muted.

## 4-2 Output busses

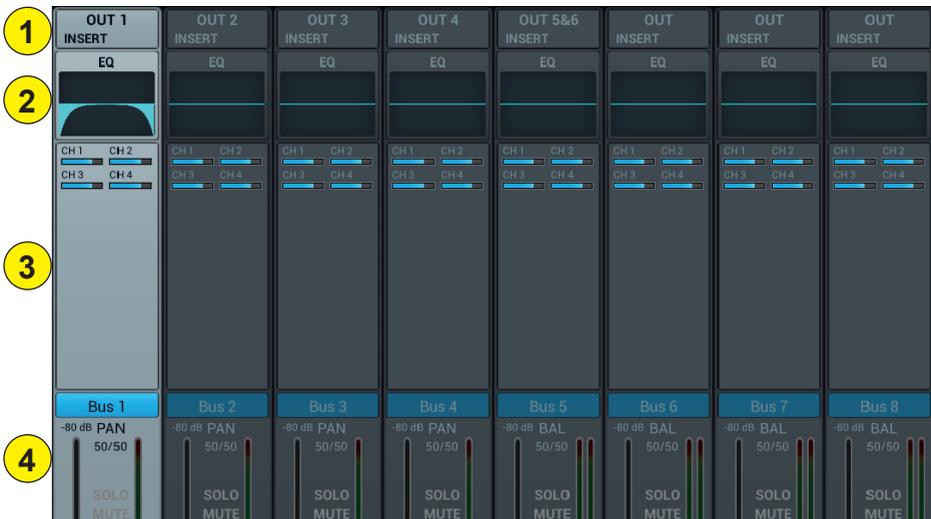
LIVEtouch20 allows mixing in a total of 8 output buses - 4 Mono (Bus 1-4), 2 Stereo (Bus 5-8 including Master L/R). In fact, there is another stereo bus for monitoring via SOLO, which can be switched to pre or post-fader listen (PFL/AFL).

Press the BUS1-8 button on the front panel or drag to the right of the stereo channels on the screen to switch to BUS 1-8 view or by pressing the SEL button on the Master L/R to display Master view:



The left side of the page gives a complete overview of all the inputs and outputs of the console, the right side shows the Master L/R output band, whose functionality exactly follows the 7-8 stereo buses.

Each output bus contains 4 modules - input stage, EQ, input source and output stage. With the exception of the input source, which is in view only, all other modules will display a subpage if the corresponding part of the screen is clicked. The subpages can be closed with the red "close" button in the upper right corner.



**1 - Input stage**

Displays the physical output assigned to each bus as well as the status of the effect inserts.

**2 - EQ**

Displays a parametric equalizer graph representing the equalizer settings.

**3 - Input source**

Displays the status and send level of each channel as a bar graph. For clarity, only channels whose sending to a given bus is enabled are displayed here.

**4 - Output stage**

Displays name, Pan/BAL value, Solo, Mute, delay, fader and level information. Double-click, for example Bus 1, to change the name of the selected channel using a virtual keyboard that will appear on the screen.

Buses 1 to 4 are mono busses

**4-2-1 Input stage sub-page**

For mono buses 1-4, this page allows you to configure the send level, pan and type (Pre-/Post-Fader) for stereo buses 5-8. Since stereo buses cannot send to themselves, these buses (as well as mono buses) only enable/disable sending to the Master L/R.

The bus text label indicates the physical output plug to which it is assigned. For example, OUT 1 is plug 1 on the back of the console, etc. The assignment can be configured in the SETUP menu and then PATCH.

**1 - Channels selector**

Allows you to switch from one channel to another while remaining on the same page.

**2 - Activate sending to busses**

Press a bus button once, to send a channel signal to the bus, press again to turn it off.

**3 - Pre/Post Fader**

Switching between pre- and post-fader sent to a bus. The pre-fader does not include the gain value of the fader, which can be useful for effect sends or monitoring. The default value is pre-fader.

**4 - Pan**

Controls the panoramic of the bus. The default value is 50|50 (middle). The PAN value can be changed by the encoder on the screen or by turning the control dial. Press the numerical control of the setting twice to reset the setting to its default value.

**5 - Send level**

Controls the level at which the signal is sent to the selected bus. This can be changed by moving the cursor on the screen.

**6 - Insert**

Press a button on the effect module to insert it before the bus equalizers. Each effects module can be inserted at a single point and while the input channels allow only one effects module to be inserted, all buses allow the subsequent insertion of two effects modules. The order of the modules is determined by the selection order. When a selected module is used in another channel or bus, a pop-up window appears: "The module can only be used once and is already used by xxx. Do you want to use the force module now? Yes / No".

To change the effect settings, press the SETUP button, then press FX and click a module to open a dialog box for the effect.

**4-2-2 Parametric equalizer sub-page**

This page is the same as for MIC channels.

**4-2-2 Output stage sub-page**

This page contains Delay, PAN, Solo, Mute, Fader Level Control and Signal Level Display. Bus5 to Bus8 and L&R bus outputs are similar to Bus1 to Bus4.

**1 - Channels selector**

Allows you to switch from one channel to another while remaining on the same page.

**2 - Delay**

Enables Delay, by default Delay is disabled. The time can be set either via the setting wheel or directly on the display. For fine adjustment, hold down the knob.

The time range is 0 ms to 200 ms.

- 3 - Pan**  
Controls the panning of the Master output. The default value is 50|50 (middle). The PAN value can be changed by the encoder on the screen or by turning the control dial. Press the numerical control of the setting twice to reset the setting to its default value.
- 3 - Solo**  
Press to enable or disable the signal sent to the solo monitor bus.
- 4 - Mute**  
Press to mute or unmute the channel.
- 5 - Fader**  
This is a copy of the physical fader of the selected channel. You can change the fader on the screen and the physical fader will follow accordingly. Press the numerical control of the setting twice to reset the setting to its default value.
- 6 - Vu-meter**  
Channel signal level indicator, indicates the post-fader signal level.

## 5 - Setup

### 5-1 Setup page



#### 1 - Information

System Version shows the version of APK, DSP, Fader and other software on this console. The IP address indicates the console's IP address.

#### 2 - Sample Rate

The default setting is 48.0 KHz. When you press 44.1 KHz once, a window opens: "The 44.1 KHz sample rate is only used for digital outputs", then the 44.1 KHz zone turns on and the 48 KHz zone turns off. The default value is always 48.0 KHz after rebooting the system.

#### 3 - Delay Unit

Selects the unit of measurement for the Delay.

#### 4 - System

- Maintenance: Allows access to the operating system.
- SetupWifi : Allows you to set the Wifi access to the console.

#### 5 - Brightness

Adjusts the brightness of the touch screen.

#### 6 - Crossover

Press BUS 8 IN, the filter works. At this point, the BUS8 operates in low mode. The control knob can be used to change the cutoff frequency from 40Hz to 300Hz. The filter slope is 24dB/oct.

Press the Master L/R IN button, the filter works. Master L/R output operates in low cut mode. The slope of the filter is 24dB/oct. The cut-off frequency adjustment range is 40Hz to 300Hz. Using these two filters reasonably results in a 2.1.

## 5-1-1 Maintenance sub-page

**1 - Update from USB**

By pressing the "Update from USB" button, a dialog box opens "After the update, the system restarts automatically. If you are sure you want to update the system, press "Install" and complete the installation by following the information.

**2 - Factory Reset**

By pressing the "Factory Reset" button once, a "Do you want to do a Factory Reset? This resets your settings to the factory default values. Press "Factory Reset" and the console will restart automatically.

If the console seems to slow down after a long period of use, you can use this function to return to factory settings. However, please back up all your important data by exporting it to USB before the session begins. Resetting the console will irrevocably erase all internal data.

**3 - Toggle Dev Mode**

Debug mode, not recommended for non-professional users.

**4 - Android Home Screen**

Debug mode, not recommended for non-professional users.

**5 - Import Settings**

Mode débogage, déconseillé aux utilisateurs non professionnels.

**6 - Export Settings**

Debug mode, not recommended for non-professional users.

**7 - Time Settings**

Setting the system time.

**8 - Save log**

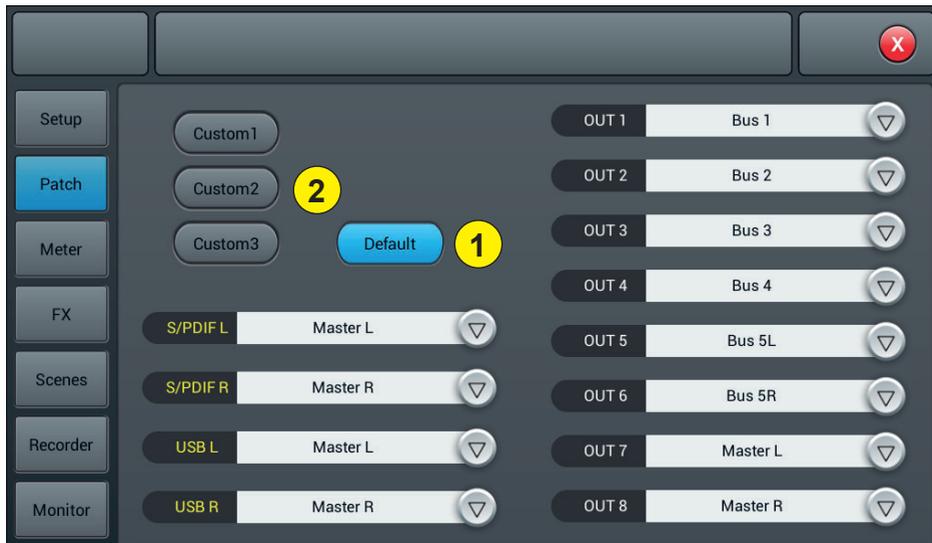
Debug mode, not recommended for non-professional users.



If a malfunction of the console was due to a bad handling of the functionalities reserved to the professionals, the guarantee would be cancelled.

## 5-2 Patch page

This page is mainly used to select the buses to assign to the 8 analog outputs, S/PDIF output and USB output. The console has 4 mono buses (Bus 1~Bus 4), 2 stereo busses (Bus 5L~Bus 8R including 1 Master L, Master R output bus).



### 1 - Default

In default mode, Bus1-Bus 5R are assigned to OUT 1 ~ OUT 6, Master L and Master R are assigned to OUT 7-8, S/PDIF OUT and USB OUT.

### 2 - Custom

Switch to custom mode after clicking one of the Custom 1, 2 or 3 buttons. Click one of the menus on any output, then select the bus to assign.

Note: The S/PDIF and USB outputs can only select stereo bus pairs or master output bus pairs, the 8 analog outputs can select one of the 8 buses.

After the system reboot, the Patch setting is always the one you set before you last turned off the console.

### 5-3 Meter page

The page contains two parts: the input signal level and the outputs.



The signal level of the input channels has three modes IN, Pre Fader and Post Fader with Pre Fader by default. To select the signal mode to display, click the corresponding button.

The output signal level has two modes Pre Fader and Post Fader with Pre Fader by default. To select the signal mode to display, click the corresponding button.

On the right side of the output levels, you can see the names of the buses that are assigned to the ports.

### 5-4 FX page



The effects consist of 8 modules, which are: 2 Modulations, 2 Delay, 2 Reverb and 2 15-band graphic equalizers. Each module can only be inserted once into an input processing channel or bus processing channel. You can insert up to two effects into a bus or channel. For example reverb & delay to create a vocal effect.

### 1 - The modules

Click on the effects module to open a subpage setting this module.

Click the close button (red X) on the subpage to exit and return to the FX page.

### 2 - Busses selection

Click on the drop-down menu, and select a bus (Bus1-Bus8, Master L/R).

If the selected bus has selected an FX module in the input part of the channel, the left frame displays the selected FX modules in the selection order from left to right.

If nothing has been selected, you can drag the FX module over the empty image (if the FX module was occupied by another channel or bus option, a dialog box opens "The module can only be used once and is already used by xxx. Are you sure you want to use the module? force now? Yes No").

### 5-3-1 Modulation sub-page

Click the "Modulation1 or 2" button in the FX subpage to access the modulation parameter subpage below.



### 1 - Modules selection

Use the left and right arrows to select the module to be set.

### 2 - Type

Click the drop-down menu, then choose a modulation type from the list: Slow Chorus/Fast Chorus/Slow Flanger/Fast Flanger, Fast Celeste/Slow/Celeste, Fast Rotor/Slow Rotor.

### 3 - Dry/Wet

Adjust the Dry-Wet setting by sliding the slider or turning the knob on the control panel.

#### 4 - EQ LS

**Curve** : Displays the LS curve

**Gain** :  $\pm 18$  dB, with a default value of 0 dB. Adjust the gain by turning the knob or on the touch screen (fine adjustment can be activated by holding the knob down). Press the parameter frame twice to return to the default value.

**Freq** : Varies from 20 Hz to 200 Hz, with a default setting of 100 Hz. Adjust the frequency by turning the knob or on the touch screen (fine adjustment can be activated by holding the knob down). Press the parameter frame twice to return to the default value.

#### 5 - EQ HS

**Curve** : Displays the HS curve

**Gain** :  $\pm 18$  dB, with a default value of 0 dB. Adjust the gain by turning the knob or on the touch screen (fine adjustment can be activated by holding the knob down). Press the parameter frame twice to return to the default value.

**Freq** : Varies from 1.5 KHz to 15 KHz, with a default setting of 6.3 KHz. Adjust the frequency by turning the knob or on the touch screen (fine adjustment can be activated by holding the knob down). Press the parameter frame twice to return to the default value.

#### 6 - Other parameters

**Speed** : Varies from 50 to 200, with a default setting of 100. set the speed by turning the knob or on the touch screen (fine adjustment can be activated by holding down the knob). Press the parameter frame twice to return to the default value.

**Intensity** : Varies from 50 to 200, with a default setting of 100, adjust the intensity by turning the knob or on the touch panel (fine adjustment can be activated by holding down the knob).

**Pre-Delay** : Set the Pre Delay time, from 0 to 100ms, with a default setting of 0. set the Pre Delay time by turning the dial or on the touch screen (fine adjustment can be activated by holding down the dial).

#### 5-3-2 Delay sub-page

Click the "Delay or 2" button in the FX subpage to access the Delay settings subpage below.



**1 - Modules selection**

Use the left and right arrows to select the module to be set.

**2 - Type**

Click the drop-down menu, then choose a modulation type from the list: One Echo 1/4, Two Echo 1/8, Three Echo 1/16, Three Echo 1/16, Delayed Four Echo 1/16, One Echo 1/4 with 4 Reflect.

**3 - Dry/Wet**

Adjust the Dry-Wet setting by sliding the slider or turning the knob on the control panel.

**4 - EQ LS**

**Curve** : Displays the LS curve

**Gain** :  $\pm 18$  dB, with a default value of 0 dB. Adjust the gain by turning the knob or on the touch screen (fine adjustment can be activated by holding the knob down). Press the parameter frame twice to return to the default value.

**Freq** : Varies from 20 Hz to 200 Hz, with a default setting of 100 Hz. Adjust the frequency by turning the knob or on the touch screen (fine adjustment can be activated by holding the knob down). Press the parameter frame twice to return to the default value.

**5 - EQ HS**

**Curve** : Displays the HS curve

**Gain** :  $\pm 18$  dB, with a default value of 0 dB. Adjust the gain by turning the knob or on the touch screen (fine adjustment can be activated by holding the knob down). Press the parameter frame twice to return to the default value.

**Freq** : Varies from 1.5 KHz to 15 KHz, with a default setting of 6.3 KHz. Adjust the frequency by turning the knob or on the touch screen (fine adjustment can be activated by holding the knob down). Press the parameter frame twice to return to the default value.

**6 - Others parameters**

**Factor** : Varies from 0 to 13, with a default setting of 1. set the Factor by turning the knob or on the touch panel (fine adjustment can be activated by holding down the knob).

**Tempo** : Varies from 40 to 240 BPM, with a default setting of 80. Adjust the intensity by turning the knob or on the touch screen (fine adjustment can be activated by holding down the knob).

**Tap-Tempo** : Click this button at least 3 times to set the BPM.

**Delay Time** : Varies from 0 to 2000ms, with a default setting of 750ms. Set the time by turning the knob or on the touch screen (fine adjustment can be activated by holding the knob down).

The delay time can be configured by Factor and Tempo (see graph 1). Factor is a regular setting, Tempo is a fine adjustment. For example, set Factor to 8, Tempo to 120 BPM, delay time is 500 ms ( $60 \cdot 1000 / 120 = 500$ ).

If Factor is set to 9, the delay time will be 1000 ms.

If Factor is set to 7, the delay time will be 250 ms.

Factor	Ratio to BPM
1	1/24
2	1/16
3	1/12
4	1/8
5	1/6
6	1/4
7	1/2
8	Equivalent to BMP
9	x 2
10	x 3
11	x 4
12	x 5
13	x 6

## 5-3-3 Reverb sub-page

Click the "Reverb 1 or 2" button in the FX subpage to access the Reverbe settings subpage below.



## 1 - Modules selection

Use the left and right arrows to select the module to be set.

## 2 - Type

Click the drop-down menu, then choose a modulation type from the list: Hall Bright/Hall Warm/ Room Bright/ Room Warm /Plate Bright/ Plate Warm.

## 3 - Dry/Wet

Adjust the Dry-Wet setting by sliding the slider or turning the knob on the control panel.

## 4 - EQ LS

**Curve** : Displays the LS curve

**Gain** :  $\pm 18$  dB, with a default value of 0 dB. Adjust the gain by turning the knob or on the touch screen (fine adjustment can be activated by holding the knob down). Press the parameter frame twice to return to the default value.

**Freq** : Varies from 20 Hz to 200 Hz, with a default setting of 100 Hz. Adjust the frequency by turning the knob or on the touch screen (fine adjustment can be activated by holding the knob down). Press the parameter frame twice to return to the default value.

## 5 - EQ HS

**Curve** : Displays the HS curve

**Gain** :  $\pm 18$  dB, with a default value of 0 dB. Adjust the gain by turning the knob or on the touch screen (fine adjustment can be activated by holding the knob down). Press the parameter frame twice to return to the default value.

**Freq** : Varies from 1.5 KHz to 15 KHz, with a default setting of 6.3 KHz. Adjust the frequency by turning the knob or on the touch screen (fine adjustment can be activated by holding the knob down). Press the parameter frame twice to return to the default value.

## 6 - Other parameters

**Time** : This parameter can adjust the basic size of the simulated part, varies from 0 to 100%, with a default value of 50%. Set time by turning the knob or on the touch screen (fine adjustment can be activated by holding down the knob). Press the parameter frame twice to return to the default value.

Type	Min.	Max.	Default
Hall Bright	0.8 s	12.0 s	1.6 s
Hall Warm			
Room Bright	0.4 s	8.0 s	0.8 s
Room Warm			
Plate Bright	0.4 s	6.0 s	0.6 s
Plate Warm			

### 5-3-4 GEQ sub-page



#### 1 - Modules selection

Use the left and right arrows to select the module to be set.

#### 2 - Library

The library allows you to save and load the user's equalization settings. Click the "Save" button and select a library entry from the list to load its settings. Click the "Save" button and select the desired library location (1 - 16) from the list to save the current EQ settings. A virtual keyboard will appear on the screen to enter a name for the setting. Finally, click "confirm" to save the setting or "cancel" to cancel.

#### 3 - Graphic equalizer

The right side displays the gain amplitude (+18, 0, -18 dB), the upper part displays the frequency and gain value (default 0dB). Drag the sliders up and down to adjust the gain for each frequency, or use the corresponding physical faders to do so.

#### 4 - Opérations

**Bypass** : Turns the equalizer on or off.

**Flat** : Reset all sliders to 0 dB.

### 5 - Fader group selection buttons

Each button corresponds to a group of eight faders, which corresponds to the eight physical faders on the console.

### 6 - RTA

With the RTA measurement function, your device can detect the frequency response of the room and try to correct it automatically.

You can use either the device's internal oscillator or an external pink noise source. You also need a high quality measuring microphone, it must be connected to one of the 12 MIC input channels.

Measurement microphones usually require phantom power, so be sure to turn on the 48V power of the selected channel and increase the gain until you get a proper signal.



Now go to the departures section and send your channel to one of the 4 Bus5 to Bus8 stereo buses. Also disable sending to L&R.



Go to the Patch page in the SETUP dialog box. Choose one of the custom settings and change the routing from USB L and USB R to the stereo bus of your choice.



Now everything your microphone detects can be seen in the RTA on the GEQ page.

If you choose to use an external pink noise source, the next part can be ignored. Otherwise, turn on the oscillator in the Monitor section and set it to send it to the L/R MIX OUTPUT output. Use either pink noise or sinusoidal mode, here pink noise has been used.

Be careful when using the sinusoidal mode, however, as it is more sensitive to room resonances and may not work well in small rooms or rooms with high resonance.

Install your microphone at least several metres away from the loudspeakers to capture their full broadcast. Ideally, place it in the central position of the audience. Increase the master fader by sending pink noise to your system until your microphone clearly picks up audio on your microphone channel level indicator.

Please make sure that there are no equalizers or other effects in the microphone channel, in the bus used for measurement, or on the L&R output.



Enter the effects section in the Setup dialog box and choose GEQ1 or GEQ2 and enable RTA. Note that there are two normal modes (below) and others that will show small changes more clearly. The mode you use doesn't matter here.

Now click Measure, a dialog box will appear indicating that the instrument will start measuring for 60 seconds. Do not touch the faders or buttons during the measurement process, as this can have a significant influence on the result.



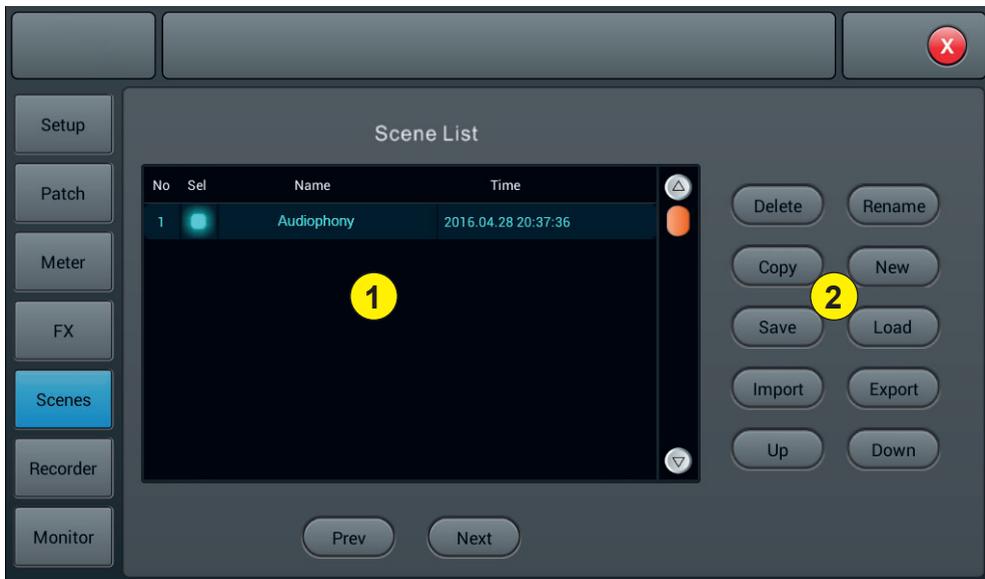
When the measurement is complete, the Measure button turns off. Now close the GEQ page and insert the GEQ into the L&R bus either via the effects page or in the input section of the L&R bus. Then go back to the GEQ, lower the Master fader and click Apply, which will change your faders to equalize according to the last bar.



Please note that frequencies below 40Hz and above 16kHz are not automatically corrected, so you must set them manually.

## 5-5 Scenes Page

This page contains the list of scenes and their possible manipulation.



### 1 - Liste des scènes

The scene list contains the number(No), the selection(Sel), the name(Name) and the create/update(Time) time. To select a scene click on its name in the list.

### 2 - Opérations

**Delete** : Delete the selected scene. A dialog box will ask you to confirm the deletion.

**Rename** : Renames the selected scene.

**Copy** : Allows you to duplicate a scene. The duplicated scene is at the end of the list.

**New** : Create a new scene.

**Save** : Save the current scene

**Load** : Load the selected scene into memory.

**Import** : Load a scene from a USB stick.

By clicking on the Import button, a "Compressed File List" dialog box opens, select one of the scenes under "Compressed File List".

If the loading is successful, the system displays "Import succesfully", press "Confirm" and the selected scene will be imported to the console.

If the USB stick cannot be found, the following message appears "No USB stick detected, please reconnect and try again".

If you do not find a scene file on the USB stick, then the system displays "Scenes file not found on USB stick!

If the loaded scene has the same name as a scene already in the console, the command will automatically rename it as"(original file name)\_USB".

**Export** : Export scenes to a USB stick. Several scenes can be exported at the same time.

**Up** : Moves the selected scene up in the list.

**Down** : Moves the selected scene down in the list.

**Prev** : Allows you to move up in the scene list.

**Next** : Move down in the scene list.

## 5-6 Page Recorder



## 1 - Player

The player displays the title of the selected song, playback progress and 8 functions:

- Stop button : 
- Play/Pause button : 
- Back button to go to the previous track : 
- Rewind button to go back in the song : 
- Advance button to advance in the song : 
- Next button to move to the next track : 
- Playback Mode Button :  repeat all songs,  repeat one song,  playback in order,  random playback.
- Record button 

## 2 - Vu-meters

Displays playback and recording levels.

## 3 - Songs list

## 4 - Record button

Start recording the L&R Master bus in wav format

## 5-7 Monitor Page

The page mainly contains the settings for Oscillator, Monitor / Phones and Solo.



### 1 - Oscillator

Console oscillator used for system testing and calibration.

**On/Off** : Enables the oscillator to be switched on and off.

**Type** : There are 3 types of signals generated by the oscillator: White noise, Sine wave and Pink noise.

**Level** : Oscillator output level, varies from -80dB to 0dB with default -30dB. Click twice on the frame to return to the default value.

**Frequency** : Frequency for the sinusoidal signal, varies from 10Hz to 20kHz with default 1kHz. Double-click the frame to return to the default value.

**Destination** : Selects the bus to which the oscillator is sent.

### 2 - Monitor/Phone

At the top right of the console, there is a 6.35 jack connector and a potentiometer to control the volume of the pre-listening output. On the rear panel you have a stereo output on Jack 6.35 to connect a monitoring system.

**Level** : Monitor output level, varies from -80dB to 0dB with default -20dB. Double-click the frame to return to the default value.

**Mute** : Mutes or activates the monitor output.

**Vu-meter** : Displays the monitor output level in real time.

### 3 - Solo

If no SOLO button is active, the monitor is powered by the L&R Master output.

When you press one of the SOLO buttons, the channel in question supplies the monitor with AFL or PFL signals.

PFL concerns the pre-fader signal that is not subject to fader and mute control.

AFL concerns the post-fader signal which is subject to fader and mute control.

**AFL/PFL** : Select the Solo signal type: Pre fader or Post fader. AFL is the default value.

**AFL/PFL Trim** : Solo signal output level, varies from -80dB to 0dB with default -20dB. Double-click the frame to return to the default value.

**Mute** : Mutes or activates the Solo signal.

**Vu-meter** : Displays the Solo signal level in real time.

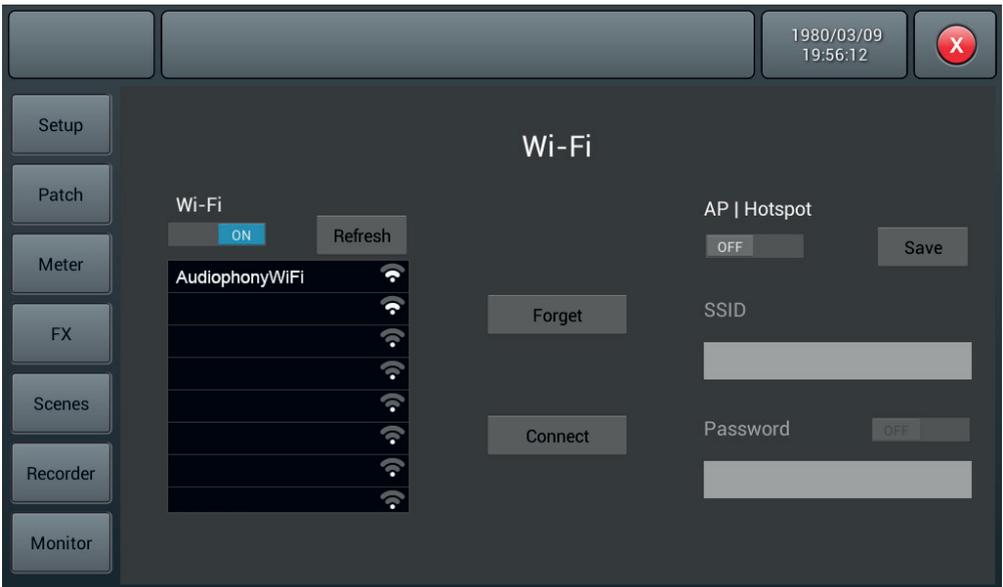
### 5-8 WIFI page

Setting the Wifi connection in order to connect an iPad that will allow you to control the console remotely. First make sure that the Wifi dongle is connected to one of the console's two USB inputs.

1 - Go to the **SETUP** page.

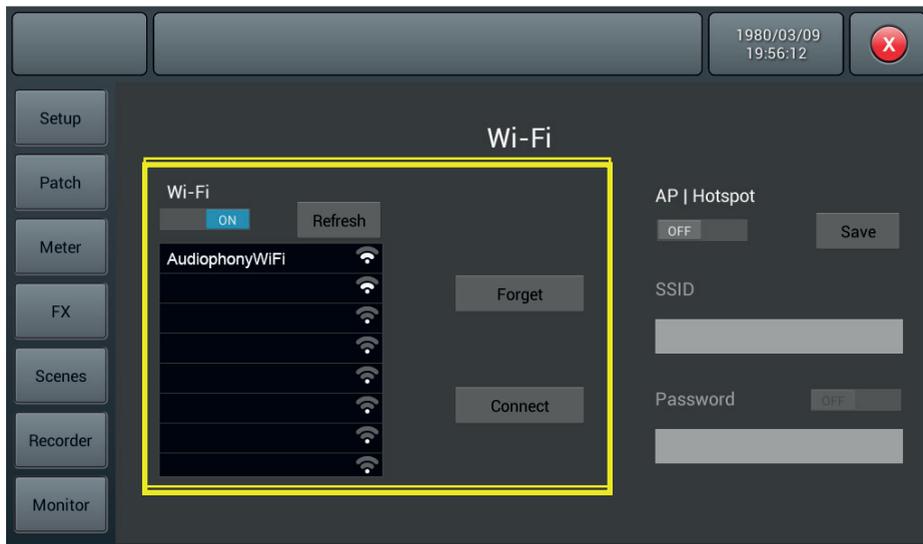


2 - Click on SetupWifi to access the Wifi configuration page.



### 3 - WiFi connection, console settings

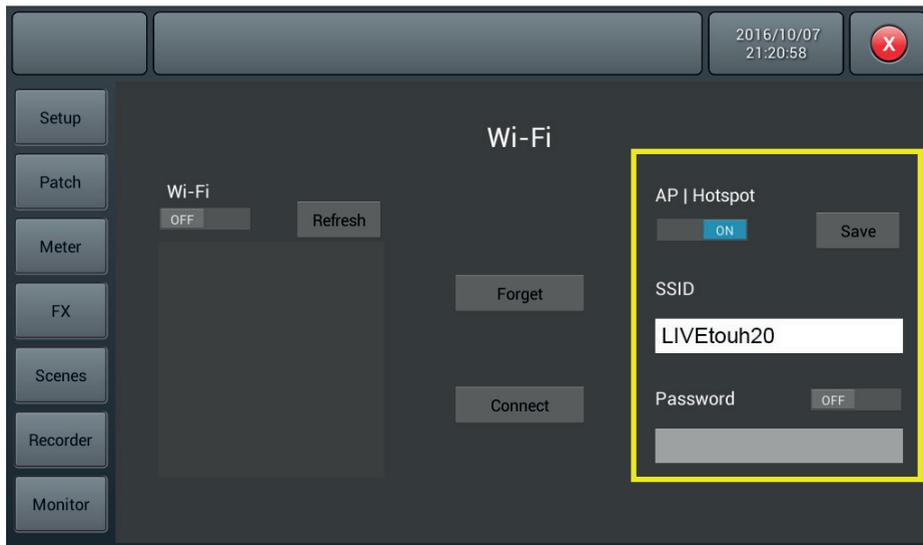
Compatible with all areas covered by WiFi, the detection distance depends on the power of your WiFi router.



- 3-1 Click the WiFi ON/OFF zone to enable detection then choose the desired access point name from the list below.  
3-2 Click Connect and enter the access point password

### 4 - Connection via AP, console settings

For places not covered by WiFi, you can connect via AP method



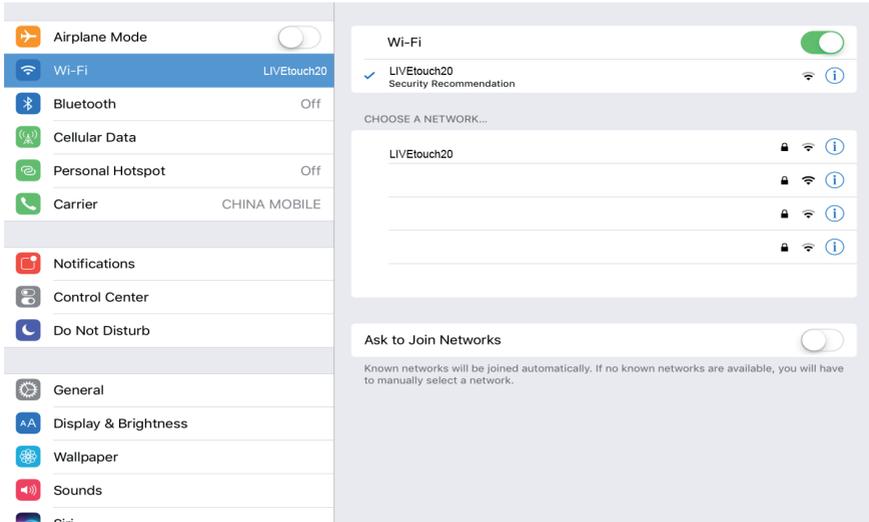
- 4-1 Click the AP | Hotspot ON/OFF area. The default AP name of the console is displayed in the SSID field.  
4-2 You can change the SSID name and choose whether or not to set a password. Confirm with the Save key.

## 5 - Installation and connection of the iPad application

5-1 - Via the iPad go to the App Store, search Audiophony or LIVEtouch20 then install the application.

5-2 - Click Settings then Wi-Fi and select the console name as shown below.

Note: The application requires an iOS version greater than or equal to version 8.0.



5-3 - Open the previously downloaded application.



5-4 - Click Scan to start the search, find "Console" and click Connect. If more than one "Console" appears, enter the IP address of the console for a direct connection.

If necessary, you can rename the connection in the Name field to differentiate your different consoles.

Note: The IP address is available in the SETUP section of the console.

5-5 - The main page of the application is as follows :



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