Studiomaster
since 1976

digiLiVE
DIGITAL MIXING CONSOLE

digiLiVE 16 Digital Mixing Console

User Guide

Issue 1.0

Contents

INTRODUCTION

Thank you for purchasing this Studiomaster product. The digiLiVE 16 is an easy to use yet sophisticated product that will enhance your performance and give you trouble free use for years to come.

The ergonomic and lightweight design coupled with ultra reliable build quality makes the digiLiVE 16 a pleasure to work with, leaving you to concentrate on the show and not the equipment!

READ THE USER GUIDE

The Studiomaster design philosophy has always been to provide the controls and features the user needs, reducing clutter, making operation intuitive.

Despite this it is worth taking the time to read this User Guide to familiarise yourself with the controls to get the best out of your digiLiVE 16. It also contains important safety information as well as practical hints.

SAFETY INSTRUCTIONS

READ THIS BEFORE YOU USE YOUR PRODUCT

1. Before connecting the A.C. power cord make sure the digiLiVE operating voltage is suitable for your local supply : 100-240V AC 50/60Hz.

2. Only use the A.C. power cord / mains lead and universal voltage power supply supplied with this product. Replace it if it becomes damaged in any way.

3. Never operate without, or remove the safety ground (earth) from the A.C. power cord / mains lead.

4. Do not attempt to remove any screws or panels. There are no user serviceable parts inside.

5. Do no operate the unit next to heat sources such as radiators.

6. The unit should not be operated or stored near rain or moisture.

7. This equipment must not be exposed to dripping or splashing and no objects filled with liquids should be placed on top of it.

WARNING : THIS APPARATUS MUST BE EARTHED (GROUNDED)

Input Channel

The digiLiVE 16 features 12 mono input channels, two analogue stereo inputs, one stereo S/PDIF and one stereo USB input for playback. The front panel buttons *INPUT 1-8* and *INPUT 9-12 ST-USB* select the corresponding input section. When pressing *INPUT 1-8*, the MIC input channels CH1~CH8 will be shown while pressing *INPUT 9-12 ST-USB* brings up MIC inputs CH9~CH12, the two analogue stereo inputs along with stereo S/PDIF and stereo USB playback. The layer can be changed at any time by pressing *INPUT1-8* or *INPUT9-12 ST-USB* on the front panel or by sliding left/right on the touch-screen while in the main menu.

MIC Channel

The MIC input channel section contains five individual modules: Input Stage, EQ, Dynamics, Bus-Send and Output Stage. Single clicking a module will bring up a sub-page with further options. The sub-pages can be closed through the red “close” button in the upper right corner.

① **Input Stage**

Shows status of 48V phantom power, phase, delay, HPF (High-Pass Filter) and effect insert.

② **EQ**

Shows a parametric EQ graph representing the EQ settings.

③ **Dynamics**

Shows a gate and compressor graph.

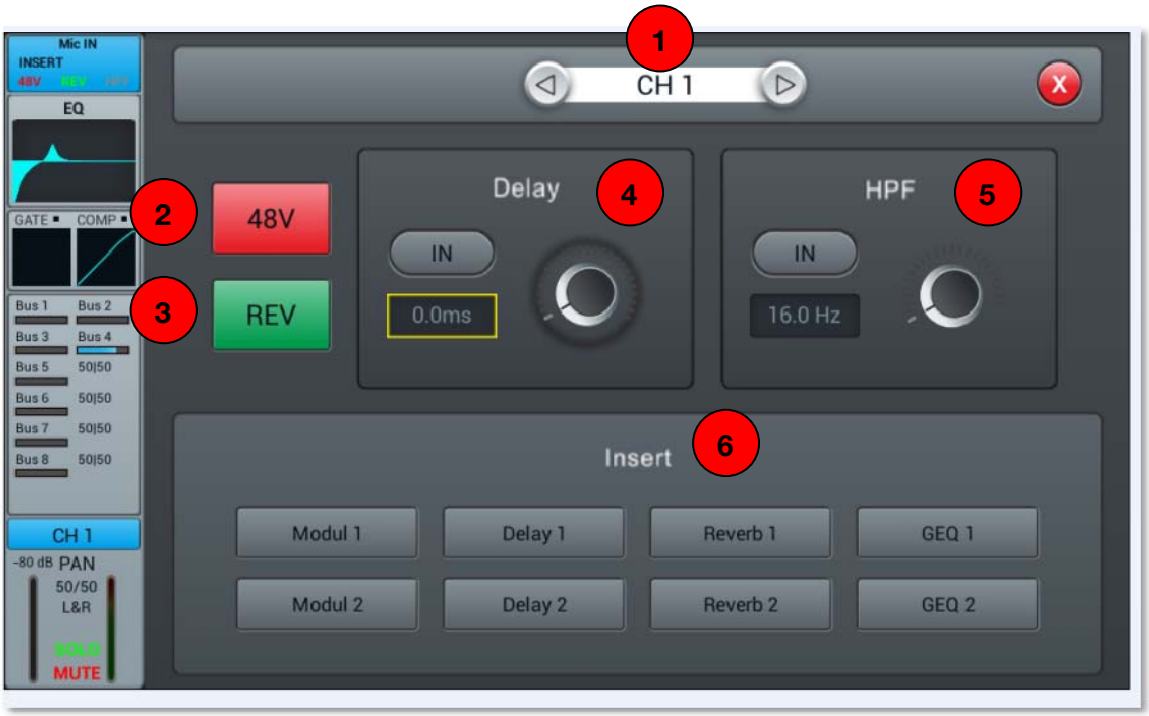
④ **Bus Send**

Shows send status: the busses being sent to along with its level and Pan value.

⑤ **Output Stage**

Displays the name, Pan value, Solo, Mute, fader- and meter level information. Double click, e.g., CH 1 to edit the name of the selected channel through an on-screen soft keyboard that will pop-up.

Input Stage Sub-page



① **Switch channels**

Press the arrow-buttons, to choose the previous or next channel within the same layer

② **48V phantom power**

Press to enable 48V phantom power for the MIC channel. Press again to disable it. Default is disabled.

③ **REV**

Press to enable phase invert. Press again for normal phase. Default is normal phase.

④ **Delay**

Press IN to enable the delay, default is disabled. Adjust the delay time using the main encoder on the control panel or by the soft-encoder on the touch screen (fine tuning can be activated by pressing and holding down the main encoder). The delay can be adjusted from 0 ms to 200 ms, default is 0ms.

⑤ **HPF**

Press IN to enable the High-Pass Filter to remove rumble or microphone pops, default is disabled. Adjust the HPF frequency using the main encoder on the control panel or by the soft-encoder on the touch screen (fine tuning can be activated by pressing the main encoder). The frequency range is 16 Hz to 400 Hz, with 16 Hz being default.

⑥ **Insert**

Press an effect module button to insert it prior to the channels EQ. Each effect module can only be inserted in one place and the input channels allow for only one effect module to be inserted. When a selected module is used in another channel or bus, a pop-up window will warn: “The module can only be used once and it is already used by xxx. Are you sure you want to use the module forcibly now? Yes / No”. Change the effect settings through: SETUP→FX→click on a module to open a dialog for the effect.

Parametric EQ Subpage

The EQ features a 4-band full parametric EQ that can easily be set up on screen via touch.

① **Switch Channels**

Press the arrow-buttons, to choose the previous or next channel within the same layer

② **Bypass**

Single press for EQ Bypass, press again to switch EQ back on. Default is no Bypass

③ **Flat**

Single press to flatten all EQ bands; this cannot be reverted.

④ **4-band EQ graph**

The four numbered points on the EQ-curve indicate the position of the four EQ-bands. Each band can be selected by taping on the corresponding point or through the select buttons ⑤. Adjustment of the selected band can be done on screen from 20 Hz to 20 kHz and +/- 18 dB by dragging the selected point or through the soft encoder ⑥. The bands parameter (gain, frequency and Q) is shown beside the selected band's number.

⑤ **Select Buttons of 4-band EQ filter**

Single-tap the "High", High-Mid", "Low-Mid" or "Low" button to select the corresponding band, which will then also be highlighted in the graph.

⑥ **Parameter Settings**

Gain, Frequency and Q can be adjusted using the on-screen soft-encoder by selecting it through touch and subsequently "dragging" it to point towards the desired value. The selected soft-encoder can also be adjusted using the blue-lit main encoder on the front panel. Pressing and holding down the main encoder allows for fine adjustment of the selected parameter.

Gain: each band can be adjusted between -18 dB and +18 dB. Default setting is 0 dB.

Frequency: each band can be set to a value between 20 Hz and 20 kHz. Default values are: HF 4kHz, HMF 1kHz, LMF 200 Hz, LF 60Hz. The terms HF, HMF, LMF and LF only refer to the initial setting of the bands; there is no restriction in setting the EQ bands so after setup LF may actually be at the top of the frequency range.

Q: allows bandwidth adjustment from 0.5(wide) to 10.0(narrow). Default is 0.5.

⑦ **Library**

The library allows to save and load user EQ settings. Tap the dropdown button and select a library entry from the list to load its settings. Tap the "Save" button and select the desired library slot (1 – 16) from the list to save the current EQ settings. A soft keyboard will pop-up on screen to enter a name for the setting. Finally press "confirm" to save the setting or "cancel" to abandon.

Dynamics Subpage

The dynamics consist of a gate and compressor which can be setup independent from each other.

① **Switch Channels**

Press the arrow-buttons, to choose the previous or next channel within the same layer

② **Library**

The library allows to save and load user settings for the Dynamics. Tap the dropdown button and select a library entry from the list to load its settings. Tap the “Save” button and select the desired library slot (1 – 16) from the list to save the current dynamics settings. A soft keyboard will pop-up on screen to enter a name for the setting. Finally press “confirm” to save the setting or “cancel” to abandon.

③ **Gate**

IN: Single press to enable the Gate, press again to disable it. Default is disabled.

Gate curve: The curve is split into 3 parts – Attack (left), Hold (middle) and Release (right). The threshold is shown on the Y-axis while the X-axis indicates the relative time for each section.

Parameter Adjustment: Adjust the Gate’s parameter on-screen by selecting and dragging the corresponding slider or use the blue-lit main encoder on the front-panel. Pressing and holding down the main encoder allows for fine-tuning the selected parameter.

Threshold: Changes the Gate's threshold in the range from -80 dB to 0 dB. Default is -80 dB. Any signals lower than the threshold will be reduced by the value set in Depth observing the attack, hold and release times.

Hold (hold-time): can be set between 2 ms and 2000 ms, default is 2 ms.

Attack (attack-time): ranges from 0.5 ms to 100 ms, default is 3 ms.

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

Depth: Sets the attenuation of gated signals (those lower than Threshold). Depth ranges from 0 dB to -80 dB, default is -80 dB

④ **Compressor**

IN: Single press to enable the Compressor, press again to disable it. Default is disabled.

Compressor curve: The curve indicates the gain-relation of input- to output signals. The curve is split into two parts – below and above the *Threshold* value. While any signal below Threshold will pass the compressor virtually unmodified, *Ratio* is applied to signals surpassing the *Threshold* value. As a result, these signals are (for *Ratio* other than 1:1) attenuated, observing *Attack* and *Release* settings. *Gain* allows for "Make-up" gain to bring the output volume of the signal back after compression.

Parameter Adjustment: Adjust the Compressor's parameter on-screen by selecting and dragging the corresponding slider or use the blue-lit main encoder on the front-panel. Press and hold the main encoder allows for fine-tuning the selected parameter.

Threshold: Changes the Compressor's Threshold in the range from -80 dB to 0 dB. Default is -20 dB. Any signal below Threshold will not be compressed. Signals above Threshold are compressed applying Ratio and observing attack and release time settings.

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

Attack: (attack time): ranges from 0.5 ms to 100 ms, default is 25 ms.

Release: (release time): can be adjusted from 20 ms to 5 s, default is 350 ms which is compatible with most sound sources.

Gain: To compensate for compression, ranges from -12 dB to +12 dB , default is 0 dB.

⑤ **Side Chain**

The side-chain allows to use another channel's signal to control the compression of the actively selected channel. This can be useful where groups of channels are used for a single instrument (e.g., drums) to ensure the compression of all channel within the group stays coherent. Tap the dropdown button and select the channel to be used as "side chain" to control the active channel. The selection also allows to switch between pre- and post EQ.

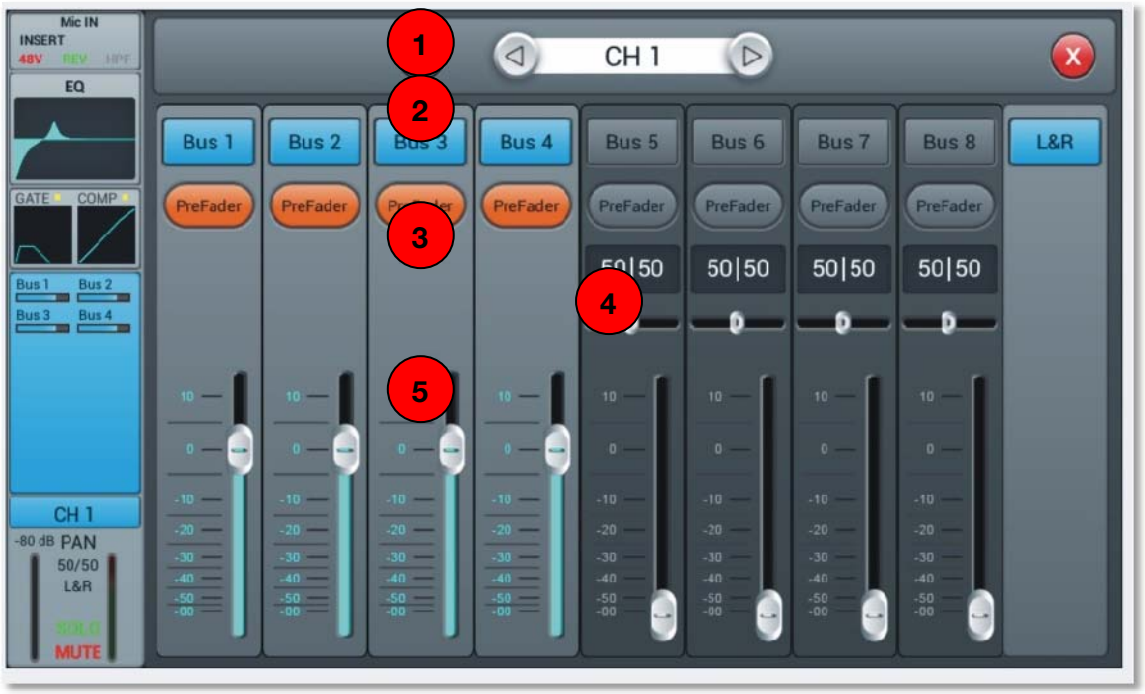
Default is pre-EQ of the actively selected channel so by default all channels work independent using their own signal as a control for the compression.

⑥ **Bypass**

Single press for full Dynamics Bypass (Gate and Compressor), press again to switch Dynamics back on. Default is no Bypass

Bus Send Subpage

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



① **Channel Switch**

Press the arrow-buttons, to choose previous or next channel within the same layer

② **Bus-send enable**

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

③ **PreFader/PostFader Switch**

Switches between pre- and post-fader send to a bus. Pre-fader does not include the fader gain value, which can be useful for effect sends or monitoring. Default is pre-fader.

④ **PAN control**

Controls the panning into a stereo bus. Default is 50|50 (middle). The PAN value can be changed by dragging the slider or by turning the main encoder on the control panel. Double-tap the numeric parameter control to reset the parameter to its default value.

⑤ **Send level control**

Controls the sent-level of the signal to the selected bus. This can be changed by moving the on-screen slider up and down.

Channel Output Subpage

Panning and level into master as well as Solo / Mute can be set here.

① **Switch Channel**

Press the arrow-buttons, to choose previous or next channel within the same layer

② **PAN control**

Controls the panning into master LR. Default is 50|50 (middle). The PAN value can be changed through the on-screen encoder or by turning the main encoder on the control panel. Double-tap the numeric parameter control to reset the parameter to its default value.

③ **Solo**

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

④ **Mute**

Like Solo, this is a copy of the hardware button on the front-panel. Press to mute or unmute the channel, which will effectively mute or unmute all pre- and post-fader sends of the active channel to all busses, including master L/R.

⑤ **Fader control**

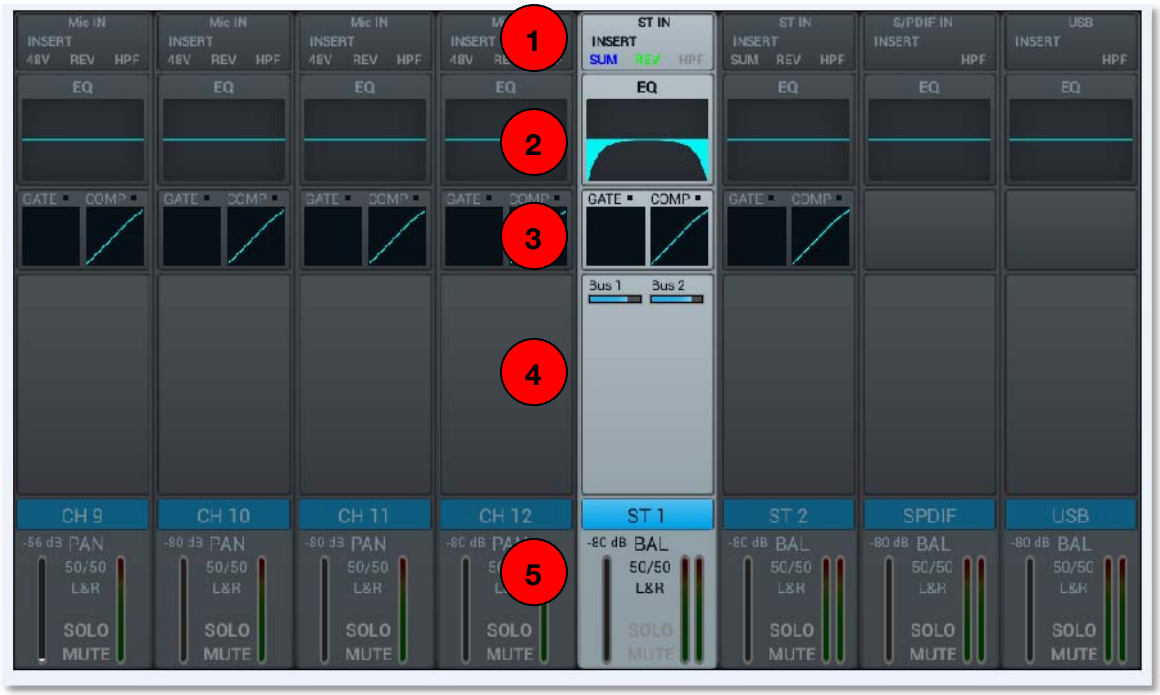
This is a copy of the physical fader of the selected channel. You can change the on-screen fader through touch and the physical fader will follow accordingly. Double-tap the numeric parameter control to reset the parameter to its default value.

⑥ **Level meter display**

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

Stereo Channel

Like the MIC channels, the two stereo inputs also include five modules: Input, EQ, Dynamics, Bus Send and Output. Single clicking a module will bring up a sub-page with further options. The sub-pages can be closed through the red “close” button in the upper right corner.



① **Input Stage**

Shows status of SUM, phase, delay, HPF (High-Pass Filter) and effect insert.

② **EQ**

Shows parametric EQ graph.

③ **Dynamics**

Shows gate and compressor graph.

④ **Bus Send**

Shows send status: the busses being sent to along with its level and Pan value.

⑤ **Output Stage**

Displays the name, Pan value, Solo, Mute, fader and meter level information. Double click the name section to edit it through an on-screen soft keyboard that will pop-up.

Stereo input Stage Subpage

① **Switch channels**

Press the arrow-buttons to choose the previous or next channel within the same layer

② **SUM**

Sums left and right input, so both sides of the stereo channel will contain the same (mono) signal. This can also be used to copy the signal to both channels in case there is only one side of the stereo signal plugged in.

③ **REV**

Phase inverts the left side of your stereo signal. In combination with SUM, this can be useful to cancel out the stereo middle, 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 enable, default is disabled. Adjust the Trim using the soft-encoder on the touch screen or the main encoder on the front panel (fine tuning can be activated by pressing and holding down the main encoder). The gain can be adjusted from -20 dB to 20 dB with 0dB being default.

⑤ **HPF**

Press IN to enable the High-Pass Filter to remove rumble or microphone pops, default is disabled. Adjust the HPF frequency by the soft-encoder on the touch screen or the main encoder on the front panel (fine tuning can be activated by pressing and holding down the

main encoder). The frequency ranges from 16 Hz to 400 Hz, with 16 Hz being default.

⑥ **Insert**

Press an effect module button to insert it prior to the channels EQ. Each effect module can only be inserted in one place and the input channels allow for only one effect module to be inserted. When a selected module is used in another channel or bus, a pop-up window will warn: “The module can only be used once and it is already used by xxx. Are you sure you want to use the module forcibly now? Yes / No”. Change the effect settings through: SETUP→FX→click on the module to open a dialog for the effect.

Parametric EQ Subpage

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

Dynamics Subpage

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

Bus Send Subpage

In case of ST1 and ST2 this page is the same as for the MIC channel. For S/PDIF and USB channels sending is limited to the stereo busses 5-8 and Master LR. For the mono busses, effectively the sum of both sides of the stereo channel is sent to the bus. For the stereo busses and Master LR, a balance is implemented instead of a Panning: center (50|50) of BAL will send the left and right parts of the stereo channel to the corresponding left and right parts on the Bus. Any other setting will attenuate one side of the stereo channel with, e.g., (100|0) only sending the left part of the stereo channel to the left side of the bus and the right part being muted.

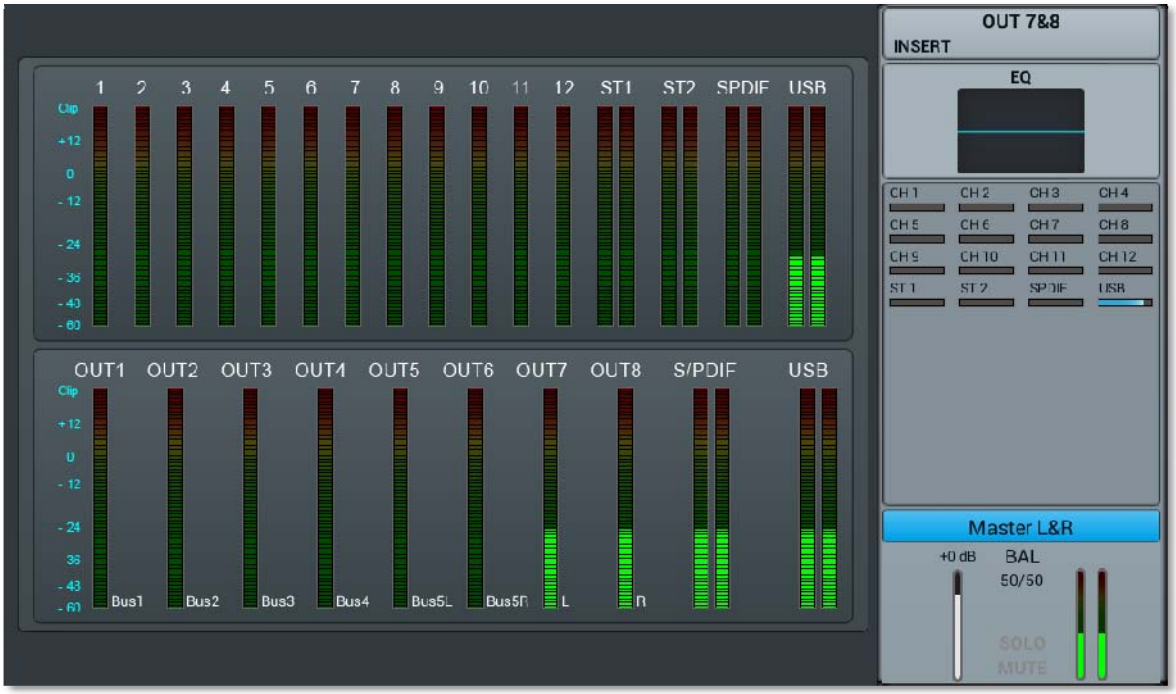
Output Stage Subpage

This page is the same as for the MIC channels

Output busses

digiLiVE 16 allows to mix into 14 output busses in total – 4 Mono (Bus 1~4), 4 Stereo (Bus 5~8) and Master L/R. In fact, there is another stereo bus for monitoring through SOLO, which can be switched as pre- or post-fader listen (PFL/AFL).

Press the BUS1-8 button on the front panel or swipe to the right side of the Stereo channels on the display to switch to the BUS view of Busses 1-8. Another swipe to the right or pressing the SEL button of the Master L/R will show the Master Layer:



While the left side of the page gives a full overview of all in- and outputs of the console, the right side shows the Master L/R output strip, which in functionality follows exactly the stereo Busses 5-8. The meter settings (pre- / post-fader) can be adjusted on the meter page in Settings, which can be opened by yet another swipe to the right or by pressing the Settings button on the front panel.

Each output buss contains 4 modules – Input stage, EQ, Input Source and Output Stage. Except the Input Source, which is view-only, all other modules will bring up a sub-page if the corresponding part in the screen is pressed. The sub-pages can be closed through the red “close” button in the upper right corner.

① **Input Stage**

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

② **EQ**

Shows a parametric EQ graph representing the EQ settings.

③ **Input Source**

Displays the send status and level from each channel as a bar-graph. For clarity, only channels with an enabled send to a given bus are shown here.

④ **Output Stage**

Displays the name, Pan/BAL value, Solo, Mute, delay, fader- and meter level information. Double click , e.g., Bus 1 to edit the name of the selected channel through an on-screen soft keyboard that will pop-up.

Input Stage Subpage

For the mono busses 1-4 this page allows to setup send level, panning and type (Pre-/Post-Fader) to the stereo busses 5-8. As stereo busses cannot send to themselves, these (as well as the mono busses) allow only for send enable/disable to Master L/R.

The text label of the bus indicates the physical output socket it is assigned to – e.g. OUT 1 being socket 1 on the back of the console etc.. The assignment can be setup in SETUP→PATCH.

① **Switch Channel**

Press the arrow-buttons to choose the previous or next bus within the same layer

② **Bus send enable**

Single press a bus button, to send channel signal to the bus, press again to disable.

③ **PreFader/PostFader swtch**

Switches between pre- and post-fader send to a bus. Pre-fader does not include the fader gain value, which can be useful for effect sends or monitoring. Default is pre-fader.

④ **PAN control**

Controls the panning into a stereo bus. Default is 50|50 (middle). The PAN value can be changed by dragging the slider or by turning the main encoder on the control panel. Double-tap the numeric parameter control to reset the parameter to its default value.

⑤ **Send level control**

Controls the sent-level of the signal to the selected bus. This can be changed by moving the on-screen slider up and down.

⑥ **Insert**

Press an effect module button to insert it prior to the busses EQ. Each effect module can only be inserted in one place and while the input channels allow for only one effect module to be inserted, all busses allow for two effect modules inserted subsequently with the order of the modules being determined by the order of selection. When a selected module is used in another channel or bus, a pop-up window will warn: “The module can only be used once and it is already used by xxx. Are you sure you want to use the module forcibly now? Yes / No”. Change the effect settings through: SETUP→FX→click on a module to open a dialog for the effect.

Parametric EQ Subpage

The EQ features a 4-band full parametric EQ that can easily be set up on screen via touch.

① **Switch Channels**

Press the arrow-buttons, to choose the previous or next channel within the same layer

② **Bypass**

Single press for EQ Bypass, press again to switch EQ back on. Default is no Bypass

③ **Flat**

Single press to flatten all EQ bands; this cannot be reverted.

④ **4-band EQ graph**

The four numbered points on the EQ-curve indicate the position of the four EQ-bands. Each band can be selected by taping on the corresponding point or through the select buttons ⑤. Adjustment of the selected band can be done on screen from 20 Hz to 20 kHz and +/- 18 dB by dragging the selected point or through the soft encoder ⑥. The bands parameter (gain, frequency and Q) is shown beside the selected band's number.

⑤ **Select Buttons of 4-band EQ filter**

Single-tap the "High", High-Mid", "Low-Mid" or "Low" button to select the corresponding band, which will then also be highlighted in the graph.

⑥ **Parameter Settings**

Gain, Frequency and Q can be adjusted using the on-screen soft-encoder by selecting it through touch and subsequently “dragging” it to point towards the desired value. The selected soft-encoder can also be adjusted using the blue-lit main encoder on the front panel. Pressing and holding down the main encoder allows for fine adjustment of the selected parameter.

Gain: each band can be adjusted between -18 dB and +18 dB. Default setting is 0 dB.

Frequency: each band can be set to a value between 20 Hz and 20 kHz. Default values are: HF 4kHz, HMF 1kHz, LMF 200 Hz, LF 60Hz. The terms HF, HMF, LMF and LF only refer to the initial setting of the bands; there is no restriction in setting the EQ bands so after setup LF may actually be at the top of the frequency range.

Q: allows bandwidth adjustment from 0.5(wide) to 10.0(narrow). Default is 0.5.

⑦ **Library**

The library allows to save and load user EQ settings. Tap the dropdown button and select a library entry from the list to load its settings. Tap the “Save” button and select the desired library slot (1 – 16) from the list to save the current EQ settings. A soft keyboard will pop-up on screen to enter a name for the setting. Finally hit “confirm” to save the setting or “cancel” to abandon.

Output Stage Subpage

Delay, Panning / Balance and level into master as well as Solo / Mute can be set here.

① **Switch Channel**

Press the arrow-buttons, to choose previous or next channel within the same layer

② **Delay**

Press IN to enable the delay, default is disabled. Adjust the delay time using the main encoder on the control panel or by the soft-encoder on the touch screen (fine tuning can be activated by pressing and holding down the main encoder). The delay can be adjusted from 0 ms to 200 ms, default is 0ms.

③ **PAN / BAL control**

Controls the panning into master L/R. Default is 50|50 (middle). The PAN value can be changed through the on-screen encoder or by turning the main encoder on the control panel. Double-tap the numeric parameter control to reset the parameter to its default value. For the stereo busses 5-8 this control is implemented as a balance control: center (50|50) of BAL will send the left and right parts of the stereo bus to the corresponding left and right parts of Master L/R. Any other setting will attenuate one side of the stereo send with, e.g., (100|0) only sending the left part of the stereo bus to Master L and the right part being muted.

④ **Solo**

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

⑤ **Mute**

Like Solo, this is a copy of the hardware button on the front-panel. Press to mute or unmute the channel, which will effectively mute or unmute all pre- and post-fader sends of the active channel to all busses, including master lr.

⑥ **Fader control**

This is a copy of the physical fader of the selected channel. You can change the on-screen fader through touch and the physical fader will follow accordingly. Double-tap the numeric parameter control to reset the parameter to its default value.

⑦ **Level meter display**

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

Setup page

The page contains Information, Sample Rate, Delay Unit, System, WiFi, Remote and Brightness.

① **Information**

System Version shows the version of APK, DSP and other software on this console. IP Address shows the IP address of the console.

② **Sample Rate**

The default setting is 48.0 KHz. When single press 44.1 KHz, a window pops up “The Sample Rate of 44.1 KHz is only used for Digital Outputs.”, then the 44.1 KHz light on, and the 48 KHz light off. The default is always 48.0 KHz after rebooting the system

③ **Delay Unit**

Single press any one among three “ms”, “ft” and “m” buttons to choose the measurement unit of the delay time. The default is “ms”. After rebooting the system, the unit of delay time is always what you set before you had powered off the console last time.

④ **System**

Contains Maintenance and Home Screen options, please refer to the Maintenance Subpage for details.

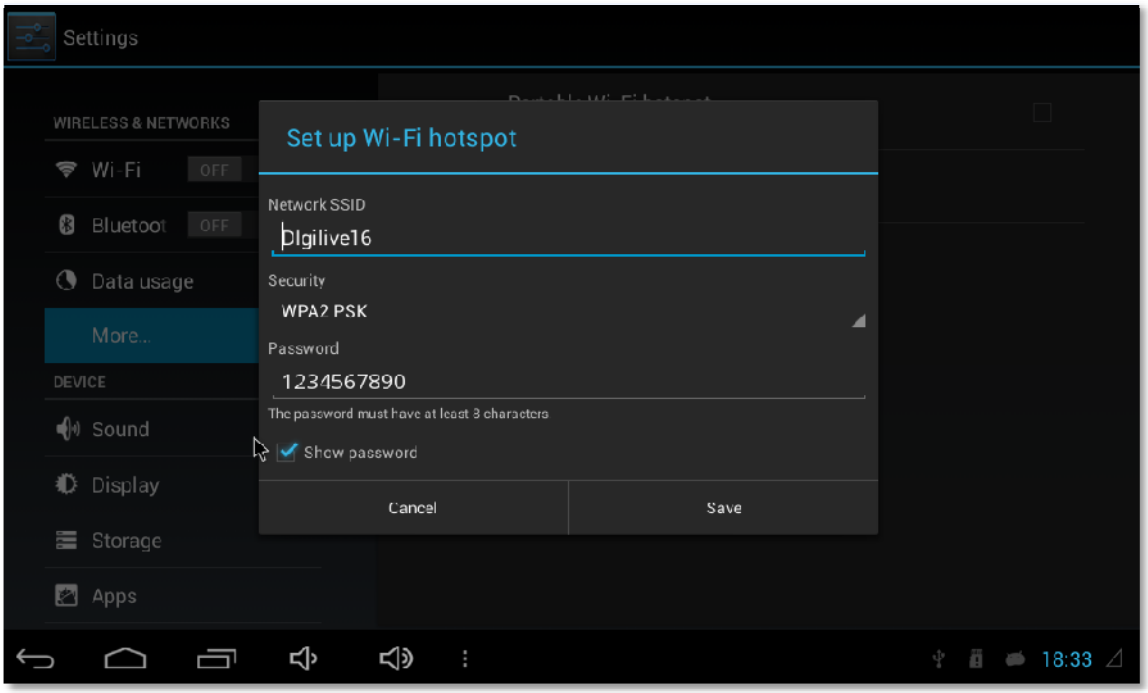
⑤ **Setup Wifi**

This button leads to the setup of WIFI, in order to connect to a compatible iPad.

Please make sure the WiFi dongle (supplied with the console) is plugged into one of the USB ports on the console.

Single press “SetupWifi” → “More” → “Portable hotspot” → “Set up Wi-Fi hotspot”

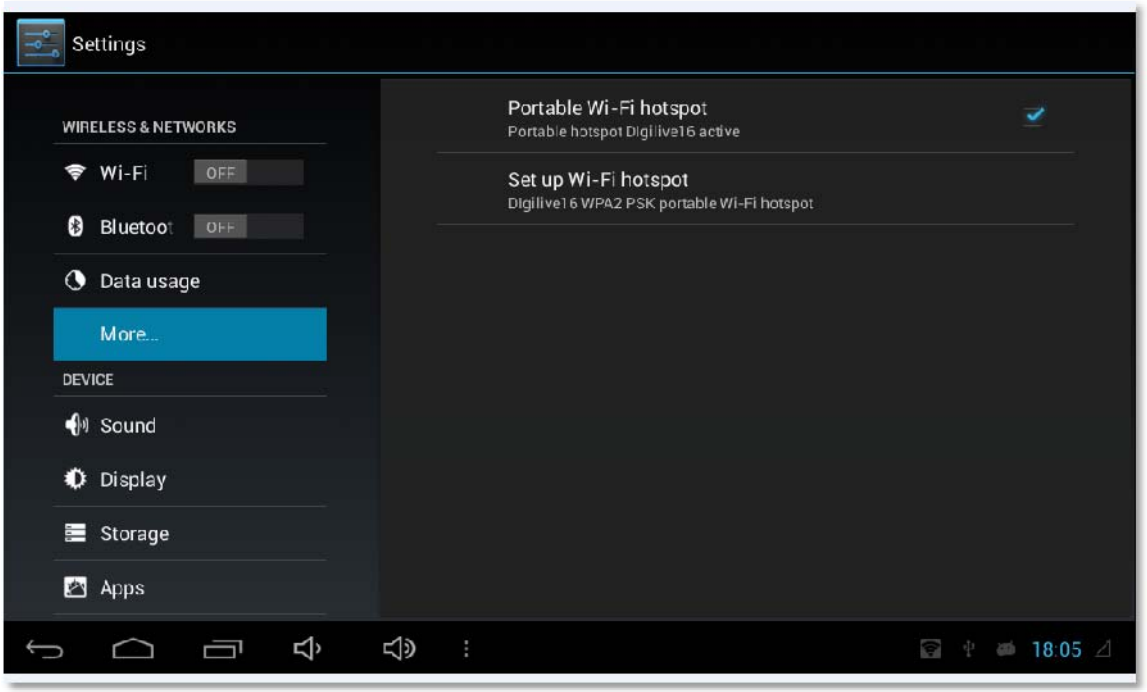
A window will pop up like below



Please enter the network name in Network SSID, for example “Digilive16”(as in the picture)

Set the password in Security, for example “1234567890” (as in the picture)

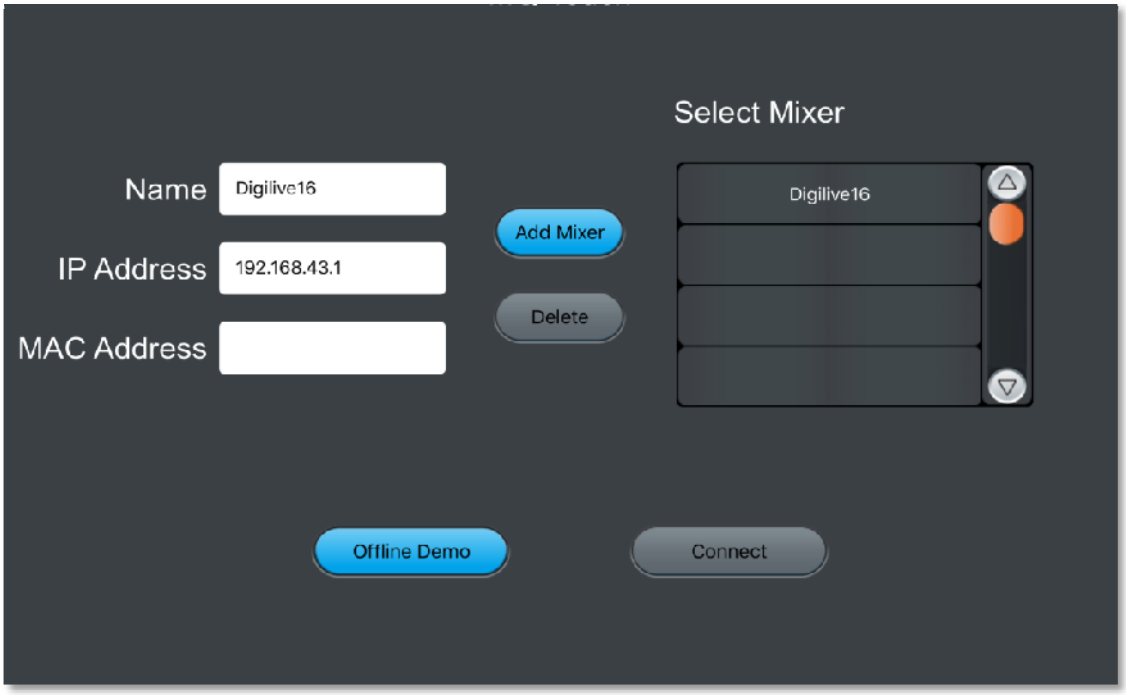
Make sure the “Portable Wi-Fi hotspot” is selected (as in the picture)



Single press “Save” to save the setup for WiFi, press “BACK” on the panel to get back to the mixing console interface.

IPAD settings as below:

1. Download the App Digilive from App Store and install it on your pad.
2. Select the network “Digilive16” which was previously configured on the mixing console, on the WIFI interface on your iPad.
3. Open the APP “Digilive16” press NETSCAN to list available mixers (the system can access multiple mixers, but only one at a time): The default mixer name is "OK".



4. Select the mixer named "OK" and press “Connect”.

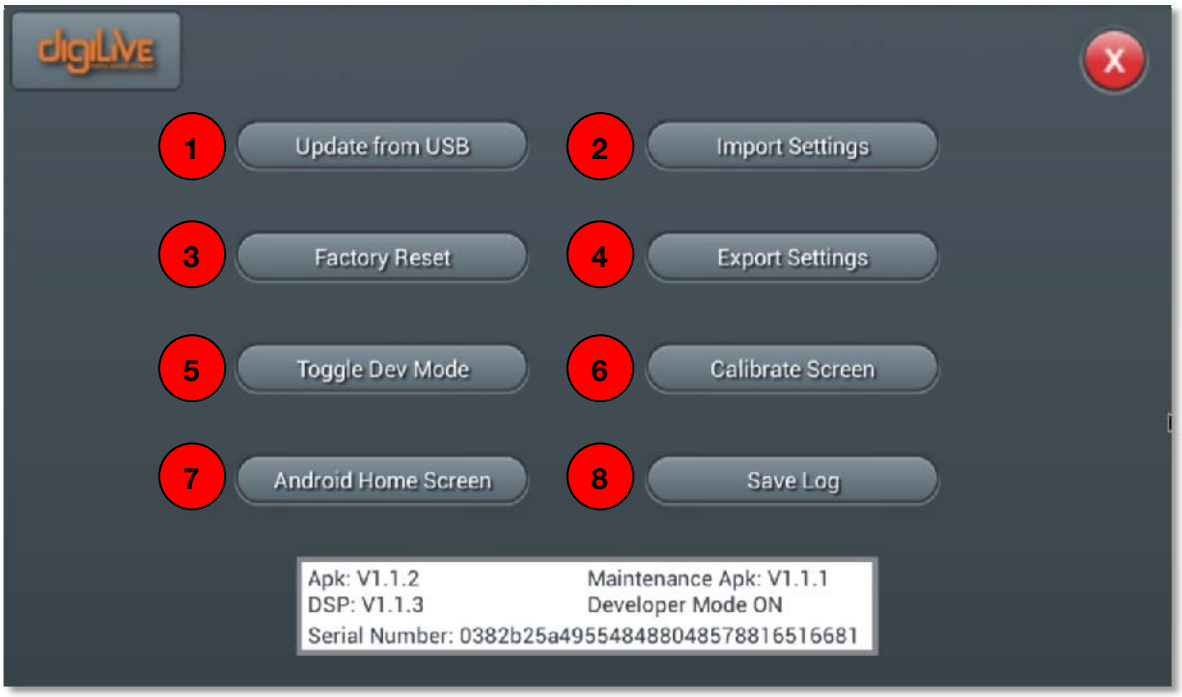
WiFi is now successfully connected.

⑥ **Brightness,**

Adjust the brightness of the touch screen.

Six units to indicate the level of brightness, the default is three units. After rebooting the system, the unit of brightness is always what you set before you had powered off the console last time.

Maintenance Page



① **Update from USB**

Software updates will be availble for download from www.studiomaster.com, it is recommended to periodiacally check for updates, or email enquiries@studiomaster.com to request latest updates. To update, copy the downloaded digiliveupdate.zip file to a USB stick and insert into the digiLiVE console USB socket.

Single press "update from USB" and follow the onscreen instructions. You may need to perform the update twice, after which the digiLiVE will reboot and your software will then be updated.

② **Factory Reset**

Single press “Factory Reset” button, a dialog pops up “Do you want to do a Factory Reset? This will reset your settings to factory defaults. The system will restart automatically after finishing”, then press “Factory Reset” and the console will automatically reboot.

If the console appears lagged in operation after a long-time running, you can use this function to reset the console to factory settings. However please save all your important data by exporting to a USB disk before you had reset the console which will irrevocably erase all the internal data.

③ **Toggle Dev Mode**

Debugging mode, not recommended to non-professional users.

④ **Android Home Screen** Debugging mode, not recommended to non-professional users.

⑤ **Import Settings** Debugging mode, not recommended to non-professional users.

⑥ **Export Settings** Debugging mode, not recommended to non-professional users.

⑦ **Calibrate Screen - Disabled on certain software versions**

Touch screen calibration function. Single press “Calibrate Screen” button, a dialog pops up “this will start a calibration software for your touch screen. Please touch the white crosses. If the calibrations messes up, you will have to connect a mouse to the evice and repeat it”, press “Calibrate” and calibrate your screen following the tip information. Please pay attention that the calibration will later on affect your operation, please always stand right in front of your console during the screen calibration, or to repeat this step should it not be calibrated correctly.

⑧ **Save Log**

Debugging mode, not recommended to non-professional users.

Patch page

This page is mainly for selecting busses to be assigned to the 8 analogue outputs, S/PDIF output and USB output. The console has 4 mono busses (Bus 1~Bus 4), 4 stereo busses (Bus 5L~Bus 8R) and master output busses Master L and Master R.

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**

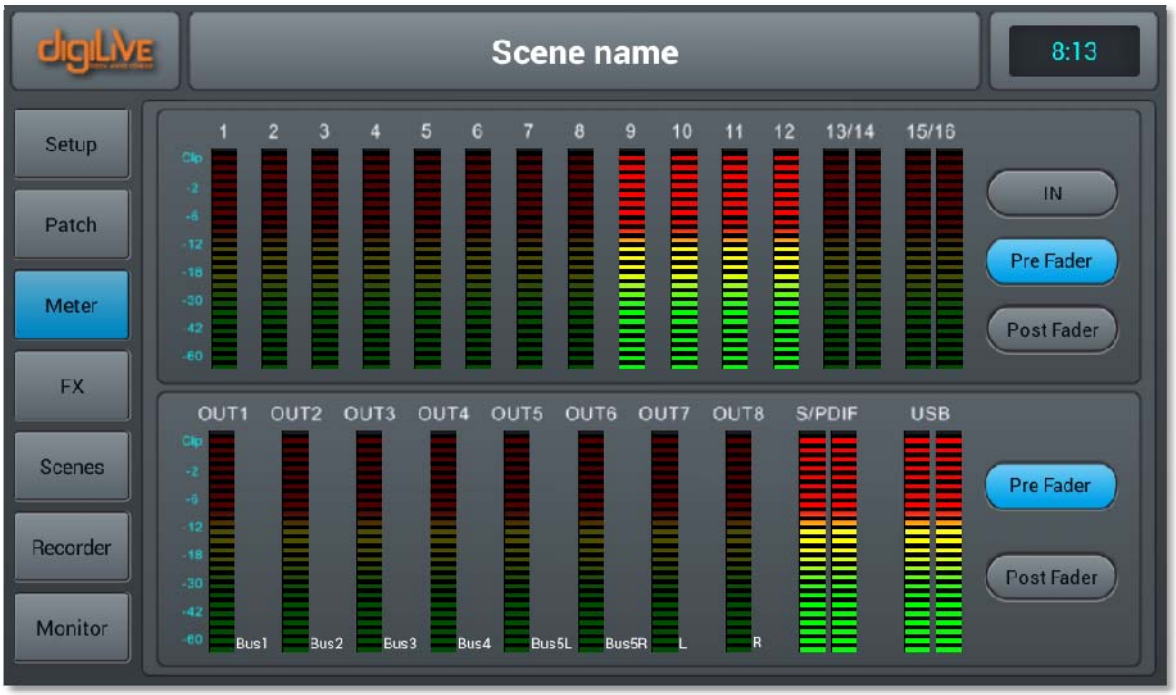
Switch to custom mode after single pressing “Custom1 2 3” buttons. Single press “ ” of any output, then select the bus to be assigned.

Notice: S/PDIF and USB outputs can only select pairs of stereo busses or master output busses, the 8 analogue outputs can select any one of the 14 busses.

After rebooting the system, the Patch setting is always what you set before you had powered off the console last time.

Meter Page

This page contains two parts: input channel signal levels and output signal levels.



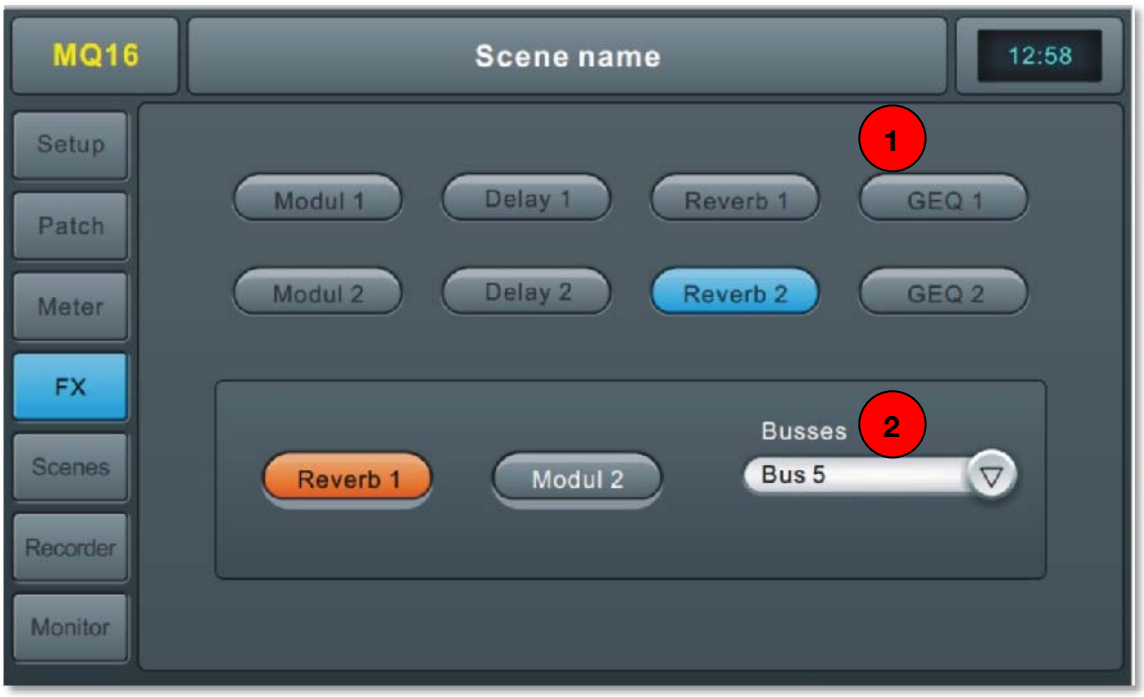
Signal level of input processing channel has three modes——IN, Pre Fader and Post Fader with Pre Fader as the default. Signal level mode displayed can be changed with a button press.

The signal level of output has two modes——Pre Fader and Post Fader with Pre Fader as

the default. Signal level mode displayed can be changed with a button press.

On the right side of signal level of outputs you can see the bus names which are assigned to the outputs.

FX page



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

① **Effect module**

Single press the effect module to open a subpage of parameter settings for this module. Single press the close button (red X) on the subpage to exit, and return to FX page.

② **Bus selection**

Single press the dropdown button, and select bus (Bus1~Bus8，Master L/R) from a dropdown list. If the chosen bus has selected a FX module in the input part of the channel, then the left frame displays selected FX modules in order of selection from left to right. If nothing has been chosen, you could drag the FX module above to the empty frame (if the FX module was occupied by other channel or bus, a dialog pops up ”The module can be used only once and it is already used by **. Are you sure you want to use the module forcibly now? Yes No”).

Modulation Subpage

Single press “Modulation1 or 2” button in the FX Subpage to access the Modulation parameter Subpage shown below.

① **Module Selection**

Single press left right selection button, to choose FX module (Modul1-Modul2-Delay1-Delay2-Reverb1- Reverb2-GEQ1-GEQ2）。

② **Type**

Single press the dropdown button, then choose a modulation type from the dropdown list—Chorus Slow/Chorus Fast/Flanger Slow/ Flanger Fast/Celeste Slow/Celeste Fast/Rotor Slow/Rotor Fast.

③ **Dry-Wet**

Ranges from 0 to 100 with a default @ 0. Adjust the parameter of Dry-Wet by dragging the slider, or turning the main encoder on the control panel.

④ **EQ LS**

Curve chart: displays the LS curve

Gain: ranges is ±18 dB, with a default @ 0 dB. Adjust the Gain by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

Freq：ranges from 20 Hz to 200 Hz, with a default @ 100 Hz. Adjust the Frequency by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

⑤ **EQ HS**

Curve: displays the HS curve

Gain：ranges is ±18 dB, with a default @ 0 dB. Adjust the Gain by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

Freq：ranges from 1.5 KHz to 15 KHz, with a default @ 6.3 KHz. Adjust the Frequency by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

⑥ **Other parameters**

Speed：ranges from 50 to 200, with a default @ 100. Adjust the Speed by dragging the slider, or turning the main encoder on the control panel (fine tuning can be activated by pressing the main encoder knob).

Intensity：ranges from 50 to 200, with a default @ 100. Adjust the Intensity by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob).

Pre Delay：configure time of Pre Delay, ranges from 0~100ms, with a default @ 0ms. Adjust the time parameter by turning the main encoder or on the touch screen

Delay Subpage

Single press “Delay1 or 2” button in the FX Subpage to access the Delay parameter Subpage shown below.

① **Module Selection**

Single press the left right selection button, to choose FX module:（Modul1-Modul2-Delay1-Delay2-Reverb1- Reverb2-GEQ1-GEQ2）。

② **Type**

Single press the dropdown button, then choose a delay type from the dropdown 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**

Ranges from 0 to 100 with a default @ 0. Adjust the parameter of Dry-Wet by dragging the slider, or turning the main encoder on the control panel.

④ **EQ LS**

Curve chart: displays the LS curve

Gain：ranges is ±18 dB, with a default @ 0 dB. Adjust the Gain by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

Freq：ranges from 20 Hz to 200 Hz, with a default @ 100 Hz. Adjust the Frequency by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

⑤ **EQ HS**

Curve chart: displays the HS curve

Gain：ranges is ±18 dB, with a default @ 0 dB. Adjust the Gain by turning the main encoder

or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

Freq：ranges from 1.5 KHz to 15 KHz, with a default @ 6.3 KHz. Adjust the Frequency by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

⑥ **Other parameters**

Factor：ranges from 0 to 13, with a default @ 1. Adjust the Factor by dragging the slider, or turning the main encoder on the control panel. (fine tuning can be activated by pressing the main encoder knob).

Tempo：ranges from 40 to 240 BPM, with a default @ 80. Adjust the Tempo by turning the main encoder (fine tuning can be activated by pressing the main encoder knob).

Tap Tempo: Keep pressing this button to set BPM value, press at least three times to set.

Delay Time: ranges from 0 to 2000 ms, with a default @ 750ms. Adjust the time parameter by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

Delay Time can be configured by Factor and Tempo (see Chart 1 for the relation). Factor corresponds to regular tuning, while Tempo corresponds to fine tuning. For example, set Factor to 8, Tempo to 120 BPM, Delay Time is 500 ms（60*1000/120=500）. if set Factor to 9, Delay Time will be 1000 ms. if Factor to 7, Delay Time will be 250 ms.

Chart 1

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 BPM
9	x 2
10	x 3
11	x 4
12	x 5
13	x 6

Feedback: to return output delay into input, so as to generate echo from amplitude attenuation. Ranges from 0 to 90, with a default @ 0. To adjust by turning the main encoder or dragging slider on the touch screen (fine tuning can be activated by pressing the main encoder knob).

Reverb Subpage

Single press “Reverb1 or 2” button in the FX Subpage to access the Reverb parameter Subpage shown below.

① **Module Selection**

Single press the left right selection button, to choose FX module（Modul1-Modul2-Delay1-Delay2-Reverb1-

Reverb2-GEQ1-GEQ2）。

② **Type**

Single press the dropdown button, then choose a wanted reverb from the dropdown list——Hall Bright/Hall Warm/ Room Bright/ Room Warm /Plate Bright/ Plate Warm。

③ **Dry-Wet**

Ranges from 0 to 100 with a default @ 0. Adjust the parameter of Dry-Wet by dragging the slider, or turning the main encoder on the control panel.

④ **EQ LS**

Curve chart: displays the LS curve

Gain： ranges is ±18 dB, with a default @ 0 dB. Adjust the Gain by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

Freq：ranges from 20 Hz to 200 Hz, with a default @ 100 Hz. Adjust the Frequency by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

⑤ **EQ HS**

Curve chart: displays the HS curve

Gain：ranges is ±18 dB, with a default @ 0 dB. Adjust the Gain by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

Freq：ranges from 1.5 KHz to 15 KHz, with a default @ 6.3 KHz. Adjust the Frequency by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

⑥ **Other parameter**

Time: the parameter can set the basic size of simulated room, ranges from 0 to 15s, with a default @ 8s. To adjust by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default. Chart 2 is time parameter range and default setting of different types.

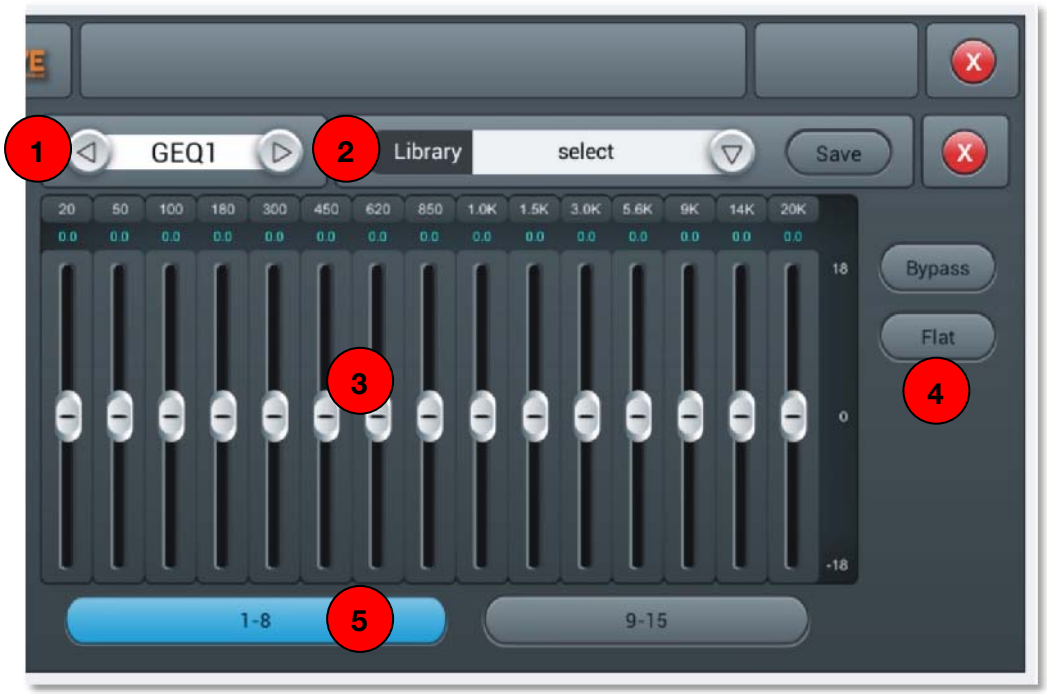
Chart 2

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

Pre Delay: configure time of Pre Delay, ranges from 0~100ms, with a default @ 0ms. To adjust by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

GEQ Subpage

Single press “GEQ1 or 2” button in the FX Subpage to access the GEQ (Graphic Equaliser) parameter Subpage shown below.



① **Module Selection**

Single press the left right selection button, to choose FX module:（Modul1-Modul2-Delay1-Delay2-Reverb1-
Reverb2-GEQ1-GEQ2）。

② **Library**

Save or load user’s EQ settings. Single press the dropdown button and select a library file from a pop-up list, in order to load the EQ setting. Single press the “Save” button after you have adjusted EQ settings, then select the library file (there are 16 libraries, Preset 1~Preset16) which can be edited through the soft-keyboard. Lastly, press “confirm” or “cancel” to save file name or not.

③ **GEQ Chart**

The right side shows the Gain coordinate（+18， 0，-18 dB）, The top side shows the Frequency coordinate (20Hz, 50Hz, 100Hz, 180Hz, 300Hz, 450Hz, 620Hz, 850Hz, 1KHz, 1.5KHz, 3KHz, 5.6KHz, 9KHz, 14KHz, 20K Hz) and gain value (default@0dB) of corresponding frequency point. Drag the slider up and down to adjust gain of that frequency point, or use the corresponding physical faders to do it.

④ **Operation**

Bypass: Single press the button, to enable Bypass. Press again to disable it. The default is disabled.

Flat: Single press the button, to set all gains of frequency points back to 0, bring slider in the middle (faders will be in the middle position of stroke if they are used to control), The default is disabled.

⑤ **Fader selection button**

1-8：Single press the button, to control the gains of frequency points with 8 faders on the panel.

9-15：Single press the button, to control the gains of frequency points with 7 faders on the panel.

Scenes Page

The page contains Scene List and operations for scenes, which are complete "snapshots" of all settings on the digiLiVE 16.

① **Scene List**

Scene List contains number (No)、selection (Sel), name (Name) and create/update time (Time). Select a scene through a single press which will be highlighted with "Sel" (select) illuminated.

② **Operation**

Delete：Delete scenes. When selecting a scene, single press the button, a dialog pops up “Are you sure you want to delete this scene?”，single press “Yes” to delete the scene, single press “No” to cancel delete.

Rename：Rename scene. When selecting a scene, single press the button, then you could edit the name the scene through a soft-keyboard popping up. Press confirm once you have renamed the scene.

Copy：Copy scene. When select a scene, single press the button, to insert copied new scene after selected scene, the system will automatically name it as “(copied scene name)_copy”.

New：Create scene. Single press the button, to insert new scene after selected scene or current scene, system will name it as “New *” （* being a number, equals to the number of scene+1）.

Save：Save scene. Single press the button, to save console’s settings to the current scene.

Load: Load scene. When selecting a scene, single press the button to load the scene。

Import：load a scene from a USB drive. Single press the button, a dialog pops up “Compressed file list”，select scene* list beneath “Compressed file list”, to load scene from USB disk to the scene list on the console. If loaded successfully, the system prompts “Import success”, press “Confirm” and selected scene will be copied to the console from the USB drive. If USB drive cannot be found, then prompts “No USB stick detected, please reconnect and try again.”； If cannot find scene file in the USB drive, then the digiLiVE prompts “Scenes file not found on USB stick!”. If the loaded scene shares a same name with the scene file in the console, the system will automatically rename it as “(original file name)_USB”。

Export：**Export** scene file from console to USB drive. Single press “Sel” option n the scene list, to select scene to be exported. They can be exported individually or in multiples. Then single press the “Export” button. If export is successful, the system prompts “Export success”, press “Confirm” to export selected scenes to USB drive. If a USB drive cannot be found, then prompts “No USB stick detected, please reconnect and

try again.”.

Up： move scene upward. When select a scene, single press the button to move selected scene upward, one press for one row.

Down： move scene downward. When select a scene, single press the button to move selected scene downward, one press for one row.

Prev： browse previous scene. Single press “Load” to load the current scene once you have seen the scene you want

Next： browse next scene. Single press “Load” to load the current scene once you have seen the scene you want

Recorder Page

The recorder page will playback recorded material on a USB drive inserted in the digiLiVE 16 USB sockets, and also simultaneously (if required) allow recording of the stereo mix to the USB drive.

① **Player**

The player will display the name of selected soundtracks and playback progress, includes 8 function buttons——stop (■)、play/pause (▶/❚❚)、previous (⏮)、rewind (◀◀)、forward (▶▶)、next (⏭)、play mode (🔁, 🔂, ☰, 🔀) and record

( ).

② **Meter display of** playback and record

Display meter of Playback and Record in real time

③ **Playback list**

Display playlist in the USB drive, single press a soundtrack to play it.

④ **Record**

Record switch is OFF as default, and the sound source to be recorded is taken from the Master L/R, single press the record button to record the audio content of Master L/R bus to the USB drive in .WAV format. Press again to stop the recording and save the file to your USB drive.

Monitor Page

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

① **Oscillator**

Oscillator of the console used for system test and calibration.

On/Off Swtich： Single press the button to switch on（ON）Oscillator, press again to switch off. The default is disabled.

Type： there are three types of signals generated by Oscillator——White noise / Sine wave / Pink noise, Single press an option in the list to select a Oscillator type.

Level：ranges from -∞ dB to 0 dB, with a default @ 30 dB. Adjust the Level by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

Frequency： Frequency settings for "Sine wave" , ranges from 10 Hz to 20 kHz, with a default @ 1 KHz. Adjust the parameter value by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

Destination：press the bus in the list to enable the bus to which Oscillator signal transmits

② **Monitor/Phones**

On the upper right of the digiLiVE 16 front panel there is a Phone jack connector, and an analogue potentiometer knob for controlling the volume of the headphones. A pair of TRS ¼" jack output connectors for connecting active speakers for a stereo monitor are on the back panel.

Level：ranges from -∞ dB to 0 dB, with a default @-20 dB. Adjust the Level value by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

Mute：Press the button to lighten the red LED button and mute monitor signal, press again to disable mute. The default is disabled. Note: The headphone signal and monitor signal are the same, which are subject to control of monitor level and mute, except analogue gain.

Meter Display: Display Monitor level of output signal in real time.

③ **Solo**

If none of the SOLO buttons are selected on the digiLiVE 16 console, the monitor is fed with the master output signal. Pressing any of the SOLO buttons then that channel feeds the monitor bus with the AFL or PFL signal. Press to enable SOLO, press again to disable it.

PFL monitors pre-fader signal which is not subject to control of faders and mutes. If PFL is chosen for stereo channels, then it feeds monitor with a mixed signal from left and right channels. AFL signal monitors post-fader signal which is subject to control of faders and mutes.

AFL/PFL Select button：Choose a mode of monitor, while default is AFL mode. Single press the button and switch to PFL mode, press again to resume AFL mode.

Trim：Gain tuning of AFL or PFL, ranges from -∞ dB to 0 dB, with a default @-20 dB. Adjust the Trim value by turning the main encoder or on the touch screen (fine tuning can be activated by pressing the main encoder knob). Double press the parameter frame to set it as default.

Meter Display: Displays the level of the Solo signal in real time.

Service Information

If you have a problem with your Studiomaster product or think it has developed a fault, contact your local dealer or distributor for service details.

Should it be recommended you return the product to your nearest Studiomaster Service Centre you must first contact them.

You will be asked for the product type and serial number. You will then be given a Returns Authorisation (RA) number.

Pack the unit in its original carton to protect it from shipping damage.

You must have the Returns Authorisation number clearly marked on the outside of the carton or we may refuse the delivery. Studiomaster cannot be held responsible for damage resulting from the equipment being packed incorrectly.

Label the equipment clearly with your name and address and include a clear description of the fault. The more information you supply helps the service engineer, minimising repair cost when out of warranty.

Please write your Serial number here for future reference....

digiLiVE16 SPECIFICATIONS

Input Characteristics

Output impedance of signal generator:150Ω

Input	*Input Impedance*	*Connector*	*Maximum Input*	*Sensitivity*	*Range*
MIC INPUT	*1.5KΩ*	*XLR (Balanced)*	*+16 dBu*	*0 to +60dBu*	*60dB*
LINE INPUT	*10KΩ*	*TRS(Balanced)*	*+30 dBu*	*-20 to +40dBu*	
ST INPUT	*10KΩ*	*TRS(Balanced)*	*+22dBu*	*-20 to +20dBu*	*40dB*

Output Characteristics

Output	*Output Impedance*	*Connector*	*Residual Output Noise*	*Maximum Output*
BUS OUT	*470Ω*	*XLR (Balanced)*	*-90 dBu*	*+18 dBu*
PHONES OUT	*100Ω*	*TRS(Unbalanced)*	*-92 dBu*	*+22 dBu*

Frequency Response

Fs= 48 kHz @20 Hz–20 kHz, referenced to the nominal output level @1 kHz

Input	*Output*	*RL*	*Conditions*	*Min*	*TYP*	*Max*	*Unit*
MIC INPUT	*BUS*	*600 Ω*	*0dBu @20 Hz–20 kHz, GAIN: 0dB*	*-0.2*	*0*	*0.1*	*dB*
ST INPUT				*-0.2*	*0*	*0.1*	

Total Harmonic Distortion

Fs= 48 kHz @ Total Harmonic Distortion is measured with a 18 dB/octave filter @80 kHz

Input	*Output*	*RL*	*Conditions*	*Min*	*TYP*	*Max*	*Unit*
MIC INPUT	*BUS*	*600 Ω*	*0dBu @20 Hz–20 kHz, GAIN: 0dB*		*0.008*		*%*
ST INPUT					*0.005*		

Hum & Noise

Fs= 48 kHz, EIN= Equivalent Input Noise@ 20Hz–20kHz

Input	*Output*	*RL*	*Conditions*	*Min*	*TYP*	*Max*	*Unit*
INPUT 1-16	*BUS*	*600 Ω*	*Rs= 150Ω,GAIN: Max. Master fader at nominal level and one Ch fader at nominal level.*		*-126 EIN*		*dBu*
					-70		
			Rs= 150Ω,GAIN: Min. Master fader at nominal level and one Ch fader at nominal level.		*-88*		
All INPUT			*Rs= 150Ω,GAIN: Min. Master fader at nominal level and all Ch1-16 in faders at nominal level.*		*-78*		
			Residual Output Noise, BUS Master Off		*-90*		

Hum & Noise are measured with a 6 dB/octave filter @12.7 kHz; equivalent to a 20 kHz filter with infinite dB/octave attenuation.

Input Function

Function	*Parameter*
Phase	*Normal/Reverse*
Delay	*0 msec to 200 msec*
HPF	*Frequency= 20Hz to 600 Hz*
	Slope= 12 dB/Oct
Insert	*2Modul/2Delay/2Reverb/2GEQ*
4 Band Equalizer	*Frequency= 20 Hz to 20 kHz*
	Gain= –18 dB to +18 dB
	Q= 0.5 to 10.0
	Low/ Low Mid/ High Mid/ High (4 Band)
	Mode:Bypass/Flat
	Library: Preset 1~Preset 16
Gate	*Threshold= –80dB to 0dB*
	Attack=0.5msec to 100 msec
	Release=2msec to 2sec
	Hold=2msec to 2sec
	Depth= –80dB to 0dB
Compressor	*Threshold= –80dB to 0dB*
	Attack=0.5msec to 100 msec
	Release=2msec to 5sec
	Gain= –12 dB to +12dB
	Ratio= 1.0 to 20
LR Pan	*CSR= 0% to 100%*
Fader	*Level:–80dB to +10 dB*
SOLO	*On/Off*
MUTE	*On/Off*
SPDIF INPUT	*Trim: –20dB to +20dB*
	HPF: 16Hz to 400 Hz
	Sampling Frequency: 44.1kHz or 48kHz

Output Function

Function	*Parameter*
Delay	*0 msec to 200 msec*
Insert	*2Modul/2Delay/2Reverb/2GEQ*
4 Band Equalizer	*Frequency= 20 Hz to 20 kHz*
	Gain= –18 dB to +18 dB
	Q= 0.5 to 10.0
	Low/ Low Mid/ High Mid/ High (4 Band)
	Mode:Bypass/Flat
	Library: Preset 1~Preset 16
LR Pan	*CSR= 0% to 100%*
Fader	*Level:–80dB to +10 dB*
SOLO	*On/Off*
MUTE	*On/Off*
Oscillator	*Type: White noise/ Sine wave/ Pink noise*
	Level: –76dB to 0dB
	Frequency= 10 Hz to 20 kHz
MONITOR/PHONES	*Level: –76dB to 0dB*
SOLO	*Mode:PFL/AFL*
	Level: –76dB to 0dB

Specifications

Maximum Voltage Gain	*80 dB INPUT to BUS OUT*
Sampling Frequency	*48kHz*
Internal Processing	*40-bit floating point*
Latency	*<1.8msec, any input to any output*
Phantom Power	*48V, individually switchable per channel*
Crosstalk (@1kHz)	*-85dB Adjacent Input Channels (INPUT, ST IN, to BUS OUT)* *GAIN: 0dB*
Fader	*100 mm motorized x9*
Dimensions	*356x 147 x 483mm (W x H x D)*
Net Weight	*5kg*
Power Requirements	*60 W (110–240V 50/60Hz)*

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