Merlet Audio SMP32

User's Manual

Index

Document revisions

Date	Doc. revision	FW version	Change
05-07-2021	R1.0	NVT.	Initial document

1 Setup

Intended use

The SMP32 is intended to be used in a studio environment to provide interconnection between studio equipment over MIDI.

The SMP32 is a powerful 32-port USB 3.0 MIDI interface.
The SMP32 gives you perfect MIDI timing and performance.
The SMP32 provides a RECORD light relay.

What is included

Please ensure that your SMP32 box includes the following:

- SMP32
- Power cable (USB cable)

Important Safety Instructions

	Equipment from Merlet Audio marked with the lightning flash with arrowhead symbolintended to alertthe user to the presence of uninsulated“dangerous voltage” within the product’senclosure that may be of sufficient magnitudeto constitute a risk of electric shock to persons. Modification should be performed only by qualified personnel.
	Equipment from Merlet Audio marked with this symbol, alerts you to the presence of uninsulated dangerous voltage inside the enclosure.
	Equipment from Merlet Audio marked with this symbol alerts you to the presence of high voltage that may be sufficient to constitute a risk of shock and a life threatening situation.
	The exclamation point within an equilateraltriangle, wherever it appears, alerts you to important operating and maintenance instructions.Please read the manual to be informed about the operating and maintenance instructions.

Information for Users on Collection and Disposal of Old Equipment and used Batteries

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste.

For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation and the
Directives 2002/96/EC and 2006/66/EC.
By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

Read these instructions.

Keep these instructions.

Heed all warnings.

Follow all instructions.

Modification should be performed only by qualified personnel.

Use only the supplied AC adaptor and the correct voltage. Be sure to use only the AC adaptor supplied with the unit. Also, make sure the line voltage at the installation matches the input voltage specified on the AC adaptor's body. Other AC adaptors may use a different polarity, or be designed for a different voltage, so their use could result in damage, malfunction, or electric shock.

Use only the supplied power cord. Use only the attached power cord.
Also, the supplied power cord must not be used with any other device.

To reduce the risk of fire or electric shock, do not expose this appliance to rain and moisture. The apparatus shall not be exposed to dripping or splashing liquids.

Don't place objects filled with liquids near / on the Merlet Audio equipment to avoid exposure to liquids

Do not block any ventilation openings. Install inaccordance with the manufacturer'sinstructions.

Clean only with dry cloth.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Protect the power cord from being walked on orpinched particularly at plugs, conveniencereceptacles, and the point where they exit fromthe apparatus.

Use only with the cart, stand,tripod, bracket, or table specifiedby the manufacturer, or sold withthe apparatus. When a cart isused, use caution when movingthe cart/apparatus combinationto avoid injury from tip-over.

Use only attachments/accessories specified by the manufacturer.

Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

The apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.

Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable

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LIMITED WARRANTY
For the applicable warranty terms and conditions and additional information regarding ENGINEERS@WORK Group's Limited Warranty see:
https://www.synthcity.nl/us/service/general-terms-conditions/

The Federal Communication Commission warns the user that changes or modifications tothe unit not expressly approved by the party responsible for compliance could void the user'sauthority to operate the equipment.

2 Starting up

The SMP32 is a modern USB 3.0 MIDI interface with a total of 32 MIDI ports in one single height 19 inch housing.
It has 16 midi input and 16 midi output ports. Input and output activity is displayed via colored LEDs on the front panel.
A SMPTE / MTC display shows the time and framerate.

The 100% fully class compliant device is bus powered and it works out of the box without the installation of additional drivers on Windows 7, Windows 8.1, Windows 10, Linux and macOS systems (both 32-bit and 64-bit).
If the number of ports is not enough, just add another SMP32 to the same computer.
All off this makes the SMP32 the most powerful USB MIDI interface for your studio.

3 Installation

Find the USB port on your computer. Make sure your computer is switched on. Connect the supplied USB cable between the connector on the back of SMP32 and the USB port on your computer. No driver installation is needed. If your computer has both USB 3.0 and USB 2.0 ports, you will achieve better performance when using a USB 3.0 port. In most cases these are in blue color – check the manual of your computer for more details.

Usage in Applications

The MIDI ports of the SMP32 automatically appear in your MIDI compatible software. Each port is displayed with a device name with a number, starting from 1 and ending with 16.

LED description:

RED LED:
When you want to use a specific output port, you need to select the device with the corresponding number and send data through it.

You will then see that the corresponding RED LED on the SMP32 front panel will be ON. Make sure this port is connected to the MIDI input of the device (i.e. sound module, synthesizer, etc.) you want to send the data to.

GREEN LED:
To use an input port, connect it to the MIDI output of a device (i.e. keyboard, etc.) and after receiving data, you will see that the corresponding GREEN LED on the SMP32 front panel will turn ON. The data of this device will be sent through the MIDI device with the corresponding number in your application software.

ORANGE LED:
Sending midi to an output port and receiving midi on the same port at the same time will make the corresponding LED turn ORANGE.

! Please note that many MIDI compatible software open all MIDI inputs simultaneously by default – more details can be found in the documentation of the application.

Showing MTC on the LED Display

When you send MTC (Midi Time Code) on output port 1, the Time code will be shown on the LED Display.

When you feed MTC (Midi Time Code) on input port 1, the Time code will be shown on the LED Display.

! Do NOT send MTC to output port 1 AND input port 1 at the same time.
! Make sure, input port 1 is not looped to output port 1 in your software.

Showing SMPTE code on the LED Display and converting it to MTC

Apply SMPTE signal to the Jack input at the back, the signal will be converted to MTC, shown at the LED Display and send as MTC to input port 1.

! Make sure, input port 1 is not connected (both front and back)

Dipswitch settings

The SMP32 has some additional options that can be changed via DIP switches that you can find at the back of the unit. To change the settings, you need a thin ball pen or tiny screw driver.

> ! Options can only be changed when SMP32 is not connected to the computer.

DIP switch 1: Using multiple units on one computer
To make it more convenient using multiple units of SMP32 with one computer, you can designate one SMP32to be the first (or 'A') device and another one to be the second (or 'B') device. Your computer will then remember which device has used which ports, i.e. you never need to change the assignment between your software and the physical MIDI ports even if one SMP32 gets temporarily disconnected or you connect the devices with different USB ports or cables. This is not really a requirement in order to use multiple units (for instance, you can use more than two SMP32 at one time even), however in complex setups that are changing from time to time, this is a nice feature. Keep DIP switch number 1 on the OFF position (i.e. down) to designate the unit as 'A' and move it up (ON position) to designate it as 'B'.

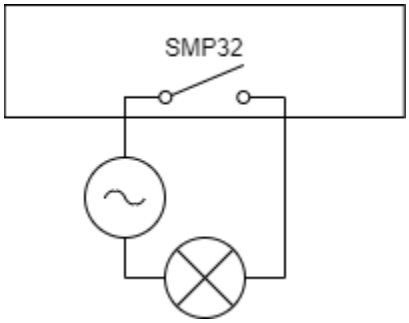
DIP switch 2: MIDI running status option
Smp32 allows you to enable the so-called MIDI running status by moving DIP switch number 2 into the ON position (i.e. up). With MIDI running status, it is possible to remove certain status bytes in the MIDI transfer. If the device you connect to smp32 supports this, you could reduce the amount of transferred data with this and possibly improve the performance.
Consult the manual of your MIDI devices for more info and check details about MIDI running status on www.midi.org before using this.

DIP switch 3: Multiple Endpoints option
For future use, leave to OFF position

Record light connection

The SMP32 can be used to control a recording light. The build-in switching relay will be active when the RECORD signal is activated.

Connection example:



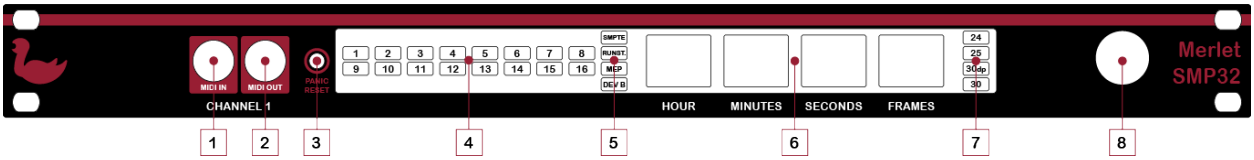
! Use max 24V 1A, when switching the Record light with the SMP32

Panic button

Pressing this button during operation will reset the midi buffers in the SMP32 and sends a midi reset to all midi out ports.

Pressing this button when the SMP32 is asleep will wake up the SMP32

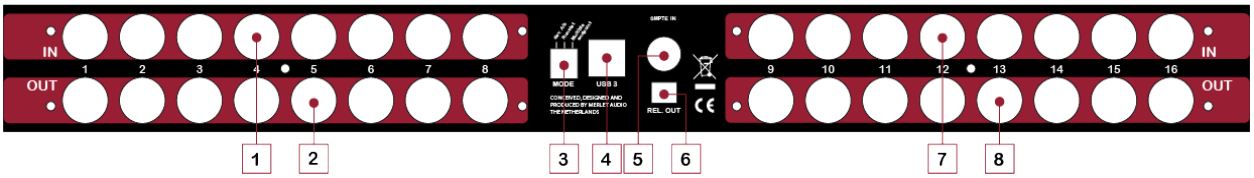
4 Panel description



Front view

From left to right, the front panel features port 1 in and output.

1. MIDI-In channel 1
2. MIDI-Out channel 1
3. USB activity LED and panic button, indicates the status of your USB port. The button works as a wakeup or as a midi panic button, sending a reset to all output ports.
4. 16 LEDs that each can be either green (indicating data on the input of the corresponding port) or red (indicating data on the output of the corresponding port).
5. 4 LEDS for status, SMPTE input and MIDI configuration. (SMPTE, RUNSTAT,MULTIPLE ENDPOINTS,DEV B)
6. 8 7segment displays give you the SMPTE or MTC timecode
7. 4 LEDS for SMPTE/MTC framerate info (24,25,30drop,30 fps)
8. ON/OFF Switch



Back view

1. 8 MIDI-In ports, channel 1-8
2. 8 MIDI-Output ports, channel 1-8
3. Dipswitch for settings (DEVICE ID, RunStat mode , Multiple Endpoint on/off)
4. USB3 connector
5. 6.35mm jack for SMPTE input
6. Relay output connector for RECORD light
7. 8 MIDI-In ports, channel 9-16
8. 8 MIDI-Output ports, channel 9-16

5 Specifications

9. USB 3.0 MIDI interface
10. 100% class compliant, works without the installation of a driver
11. USB bus powered
12. 32 MIDI ports, 16 in and 16 out, port 1 in and out also available on the front
13. SMPTE / MTC time display
14. SMPTE to MTC converter
15. Record light relay output
16. multiple units can be used with one computer at a time
17. downwards compatible to USB 2.0 with a USB 2.0 legacy mode
18. dimensions: 19inch, 1HE