

# RT-OS LP

# **Low-Power Output Switcher**



# **User Manual** V1.11

**NTI Headquarters** Im alten Riet 102, 9494 Schaan Liechtenstein / Europe Phone: +423 - 239 6060, Fax: +423 - 239 6089

info@nti-audio.com, www.nti-audio.com



## 1 DESCRIPTION

NTI's RT-OS LP is a low-power output switcher that is controlled from a PC through an USB link. The switcher comprises two (2) balanced XLR inputs and four (4) XLR outputs that are normally used as a two-channel 1:2 matrix. Alternatively, the RT-OS LP can also be operated as a single-channel 1:4 matrix.

- <u>Device ID</u>: define the individual device ID of the RT-OS LP via the DIP-switch on the rear panel (*chapter 2.3*). Up to four RT-OS LP units can be controlled from one PC.
- 1:4 matrix operation: connect INPUT B (or A) externally to IN LINK A (or B).
- <u>LEDs</u>: the four LEDs on the front panel indicate the active outputs (active ON).
- <u>GND LIFT</u>: these switches allow disconnecting the audio ground (Pin 1 of XLR) of the corresponding output connectors.

NOTE The RT-OS LP must only be used as an output switcher, whereby the input current must not exceed 80 mA.

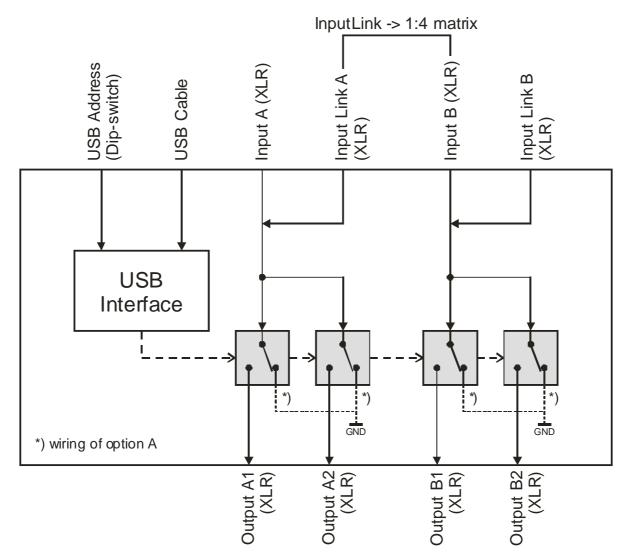


Fig 1 RT-OS LP block diagram

### 2 Installation

#### 2.1 Wiring

RT-OS LP is normally used in combination with a PC-software from NTI (i.e. RT-Speaker, RT-ATS or RT-Compliance). The wiring details are shown in the User Manuals of the corresponding packages.

NOTE Operate the RT-OS LP Output Switcher only under control of a PC-software from NTI to avoid damages of peripheral devices or the whole system.

#### 2.2 USB Driver Software

#### Step 1

Connect the RT-OS LP via an USB cable to the controller PC. As soon as you do this for the first time, the following message appears:

Select the entry "Install from a list or specific location ..." and click in "Next".



Fig 2 Installer screen #1

#### Step 2

Insert the CD-ROM with the control software to your controller PC.

On the second installation panel, select the entry "Search for the best driver in these locations", tick the box "Search removable media ..." and click on "Next".

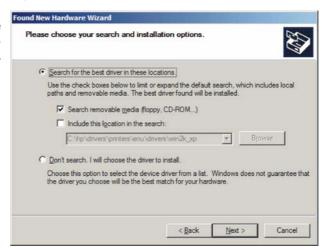


Fig 3 Installer screen #2



#### Step 3

As soon as the installer has found the USB driver on the CD-ROM, the following message shows up:

Click on "Next" to confirm the installation.

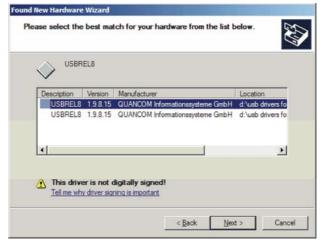


Fig 4 Installer screen #3

#### Step 4

As soon as the driver has been installed successfully, click on "Finish".



Fig 5 Installer screen #4

#### 2.3 Device Address Selection

The DIP-switch on the RT-OS LP rear panel defines the individual address of the unit. Since the switch can be adjusted in four different states ("0", "1", "2" or "3"), it is possible to connect & control up to four RT-OS LP units by one PC.

#### Example

The DIP-switch settings shown in  $Fig\ 6$  represent the device address "1" (= 0\*2 + 1\*1).

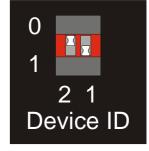


Fig 6 DIP-Switch





# 3 SPECIFICATIONS

#### 3.1 Accessories

- USB cable (included)
- XLR cable (included)

## 3.2 Audio Inputs

Connectors: XLR female

No. of inputs: 2

Max. input voltage: 50 Vpeak

Max. input current: 80 mA

Bandwidth: DC to 20 kHz

# 3.3 Audio Outputs

Connectors: XLR male (OUTPUT A, B)

XLR female (OUT LINK A, B)

No. of outputs: 2+2 (each with a ground lift switch)

Bandwidth: DC to 20 kHz

#### 3.4 USB Interface

Connector. USB B type

USB address: 4 addresses (0–3), defined by DIP-switch setting

#### 3.5 General

Switch ON/OFF time: < 2 ms

Temperature, humidity: 0° to 45° C (40 to 110 F)

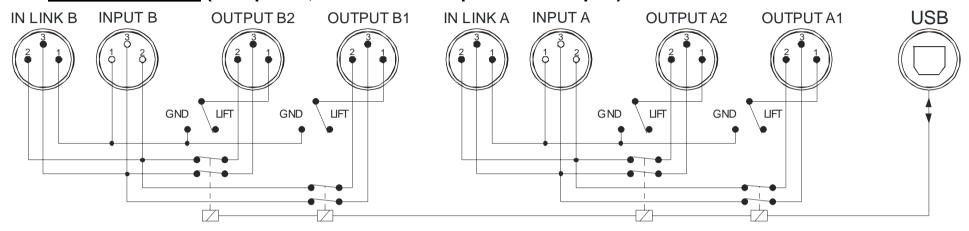
R.H. < 90% non-condensing

Dimensions: 19" rack device, 1 rack unit high



# 4 APPENDIX – WIRING OF RT-OS LP

# 4.1 Standard version (XLR pins 2, 3 of inactive outputs are left open)



# 4.2 Option A (XLR pins of inactive outputs are shorted)

