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# RT-OS LP

## Low-Power Output Switcher



## User Manual

V1.1

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# 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.

- Device ID: 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).
- LEDs: the four LEDs on the front panel indicate the active outputs (active ON).
- GND LIFT: 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.

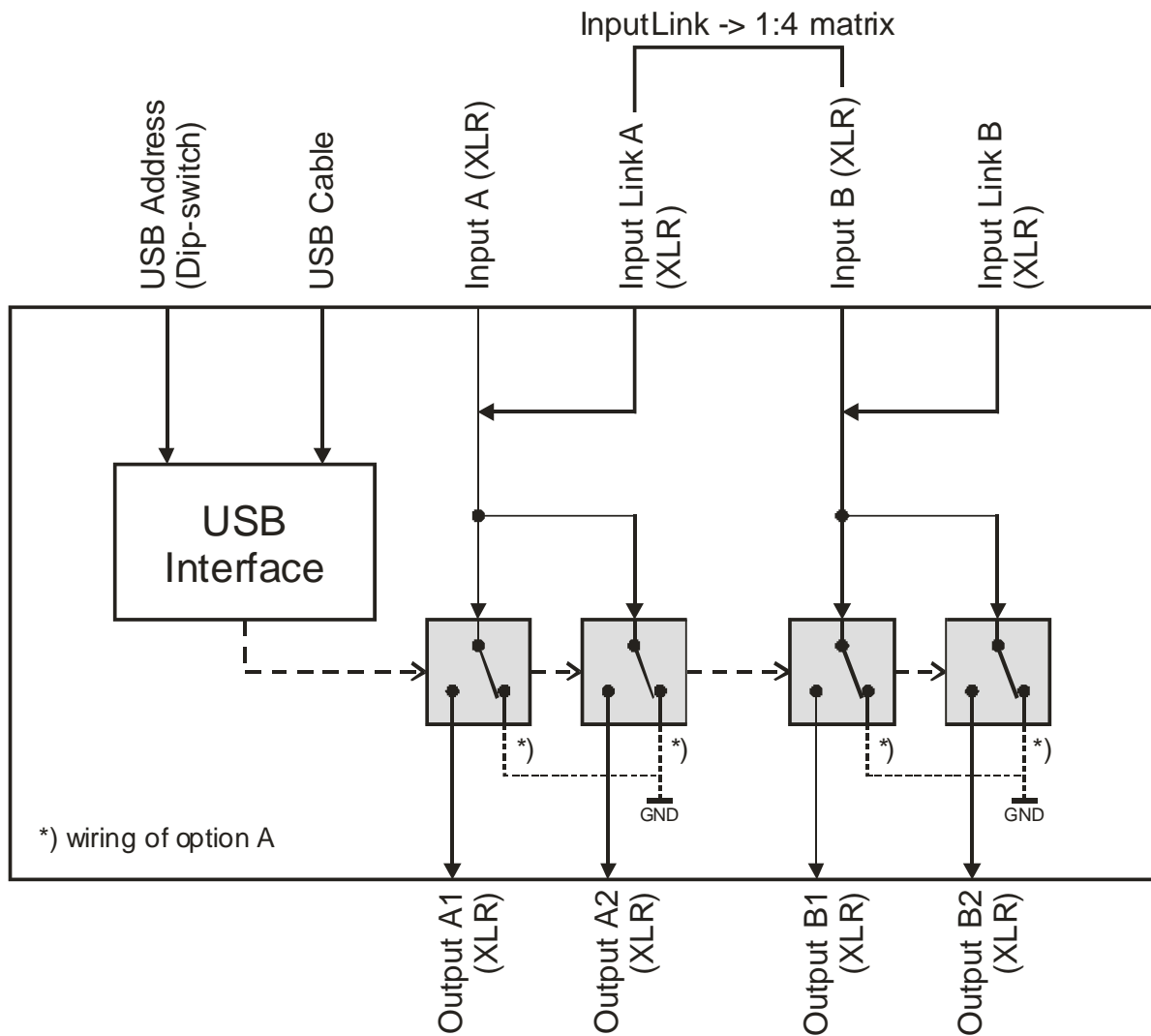


Fig 1 RT-OS LP block diagram

## 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*”.

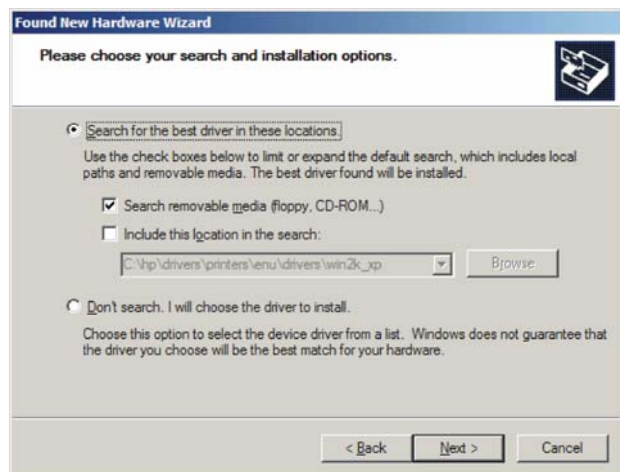


Fig 3 Installer screen #2

**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.

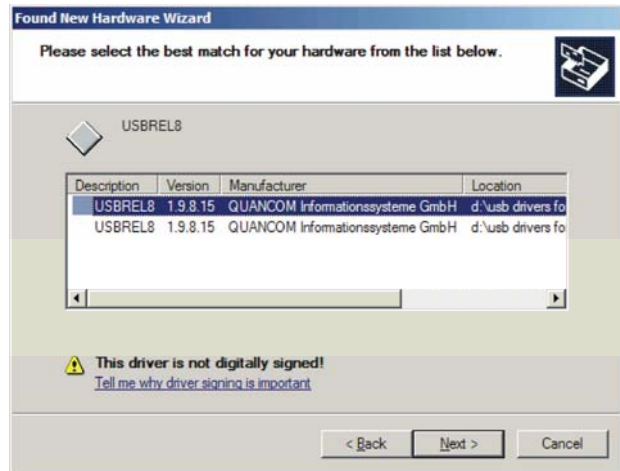


Fig 4 Installer screen #3

**Step 4**

As soon as the driver has been installed successfully, click on “*Finish*”.

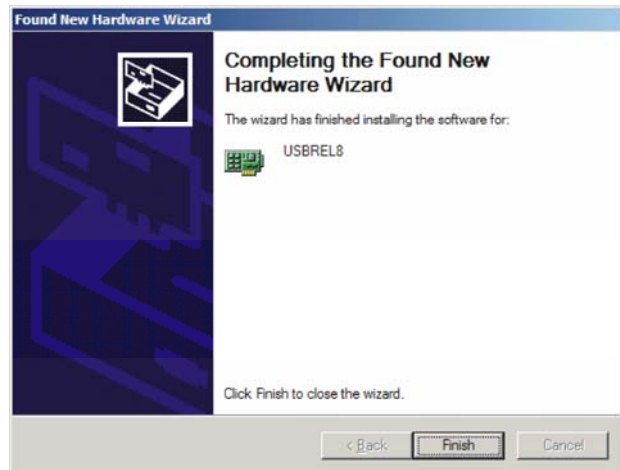


Fig 5 Installer screen #4

**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).

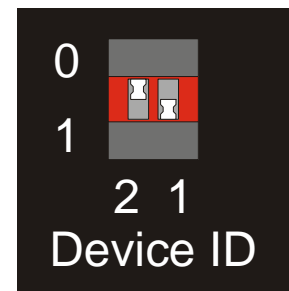


Fig 6 DIP-Switch

## 3 SPECIFICATIONS

### 3.1 Accessories

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

### 3.2 Audio Inputs

<i>Connectors:</i>	XLR female
<i>No. of inputs:</i>	2
<i>Max. input voltage:</i>	50 V <sub>peak</sub>
<i>Max. input current:</i>	80 mA
<i>Bandwidth:</i>	DC to 20 kHz

### 3.3 Audio Outputs

<i>Connectors:</i>	XLR male (OUTPUT A, B) XLR female (OUT LINK A, B)
<i>No. of outputs:</i>	2+2 (each with a ground lift switch)
<i>Bandwidth:</i>	DC to 20 kHz

### 3.4 USB Interface

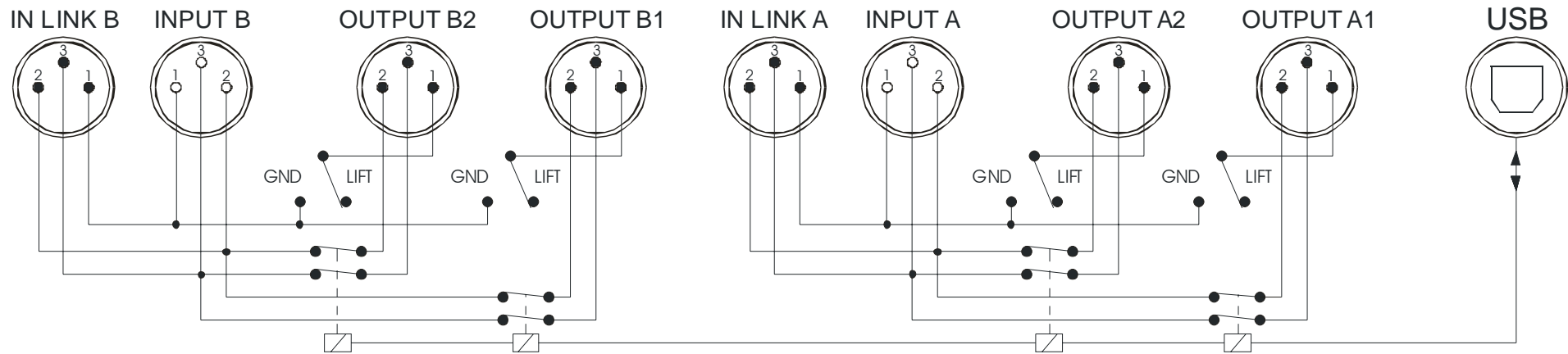
<i>Connector:</i>	USB B type
<i>USB address:</i>	4 addresses (0–3), defined by DIP-switch setting

### 3.5 General

<i>Switch ON/OFF time:</i>	< 2 ms
<i>Temperature, humidity:</i>	0° to 45° C (40 to 110 F) R.H. < 90% non-condensing
<i>Dimensions:</i>	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)

