

# FACE ACADEMY

## XR18 User Guide MIDI Functionality



- ✓ Remote-control XR18 with external MIDI devices
- ✓ Record and playback XR18 mixer automation via USB
- ✓ Use as pure MIDI-to-USB Interface (bypass XR18 mixer)



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## XR18 User Guide – MIDI Functionality

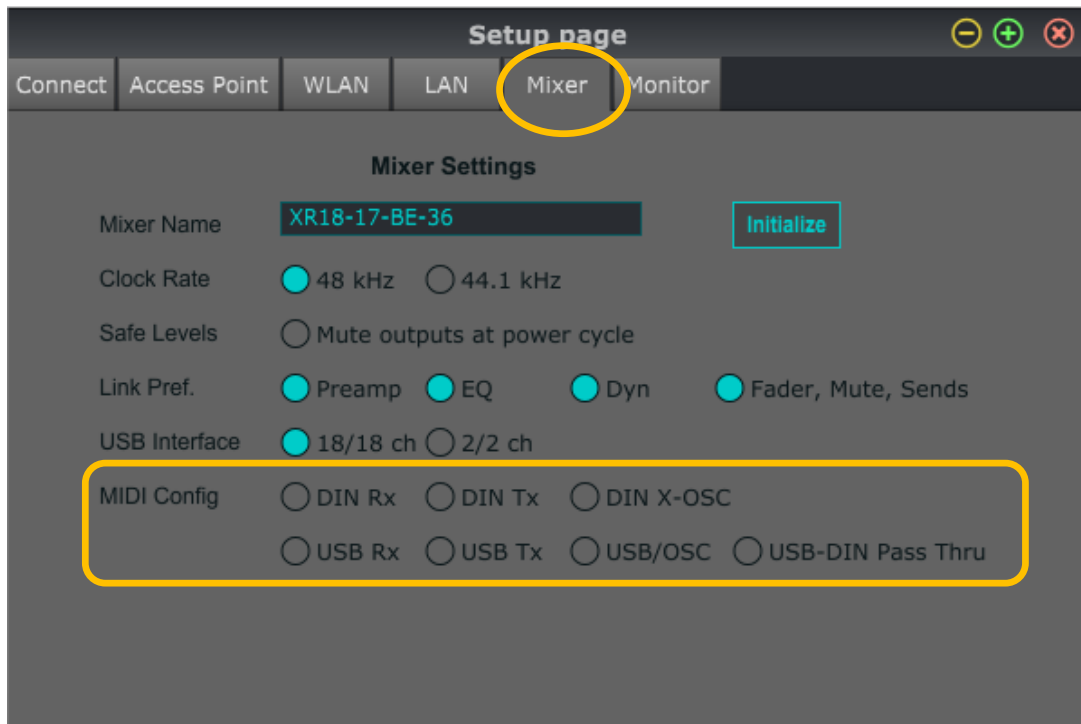
There are two ways of using MIDI in conjunction with XR18

- a.) Use MIDI to exclusively affect / remote-control actual XR18 digital-mixer
  - Via front-panel DIN Ports (-> connect external MIDI devices such as fader-controls)
  - Via USB connection (-> stream of MIDI data from/to computer)
- b.) MIDI commands completely bypass actual XR18 mixer
  - Usage as MIDI-to-USB interface in studio & live situations

### a.) MIDI to affect / remote-control actual XR18 digital-mixer

Make sure the XR18 is connected. At present (-> March 2015) MIDI settings are only available via PC/MAC/LINUX application.

1. Launch XAir app and open “Setup” menu. Click on “Mixer” tab to find “MIDI Config” menu.

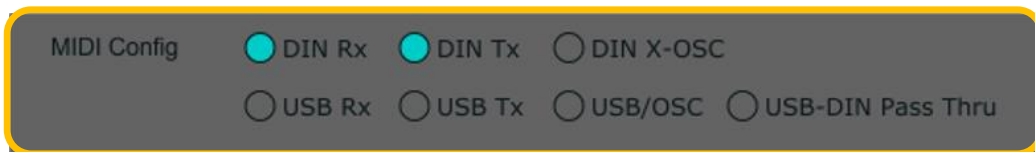


- ➔ Ensure “USB-DIN Pass Thru” is **NOT** checked
- ➔ Configuration of MIDI DIN ports on XR18 front-panel
  - Check “DIN Rx” – MIDI signals via MIDI DIN IN sent to XR18 mixer
  - Check “DIN Tx” – MIDI DIN OUT provides all commands from XR18 mixer
- Configuration of USB MIDI
  - Check “USB Tx”: MIDI commands generated by XR18 mixer are sent via USB
  - Check “USB Rx”: XR18 mixer receives MIDI signals coming-in via USB
- ➔ Use DIN ports and USB MIDI simultaneously
  - Record XR18 automation data on computer with MIDI device on front-panel DIN
  - Front MIDI DIN device reacts on XR18 automation MIDI data from computer
- ❖ “DIN X-OSC” (OSC via SysEx string) & “USB/OSC”: OSC doc coming soon (Q2 2015)

**Application examples** (hook-up diagrams see below)

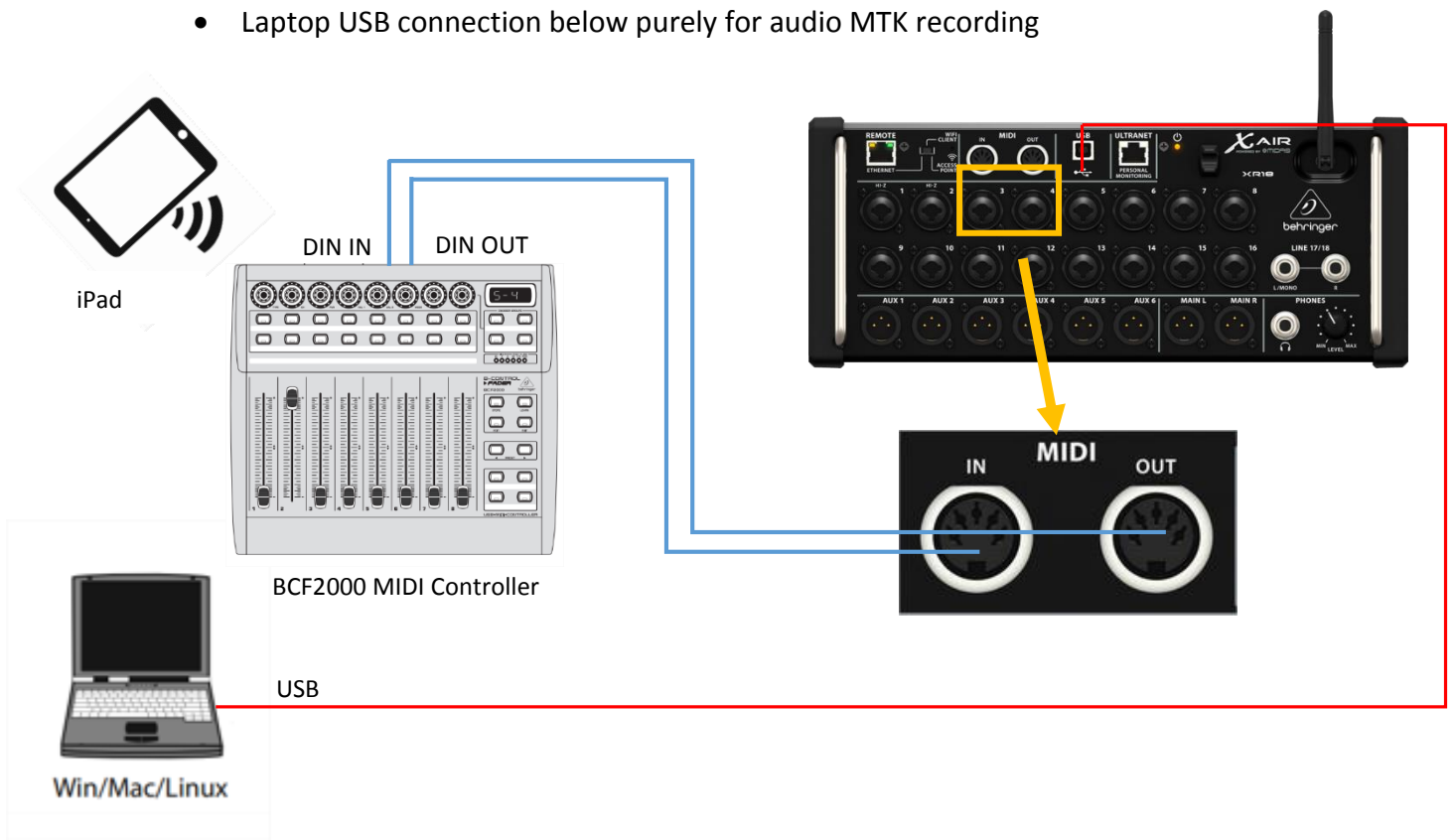
- 1) External MIDI device remote-controls XR18 (front-panel DIN ports)
- 2) Record mixer MIDI automation data on computer (USB interface)
- 3) Record mixer automation on computer with external MIDI device (DIN port + USB)
- 4) Send MIDI remote data on XR18-mixer for automation (USB interface)
- 5) Send MIDI remote data on XR18-mixer for automation + MIDI device connected (DIN port + USB interface)

1) Connection of external MIDI remote-controller via DIN sockets

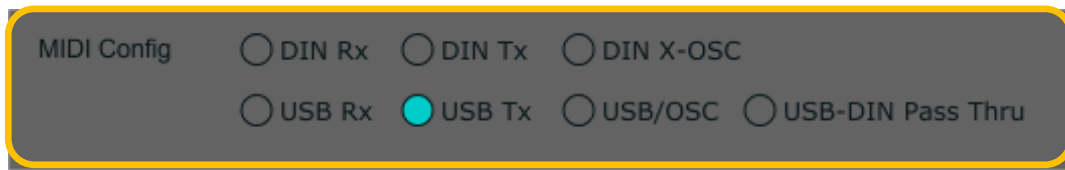


X Air App – MIDI Config settings (Setup -> Mixer)

- Hardware MIDI controller BCF2000 connected to XR18 via DIN MIDI cables
- Both ways (In/Out) connected to display parametric feedback on BCF2000
- MIDI CC for Fader, Mute, Pan (see MIDI implementation chart last page)
- iPad wirelessly connected to XR18 affects mixer -> all mixer-changes made in the App are reflected on BCF2000 (and vice-versa)
- Laptop USB connection below purely for audio MTK recording

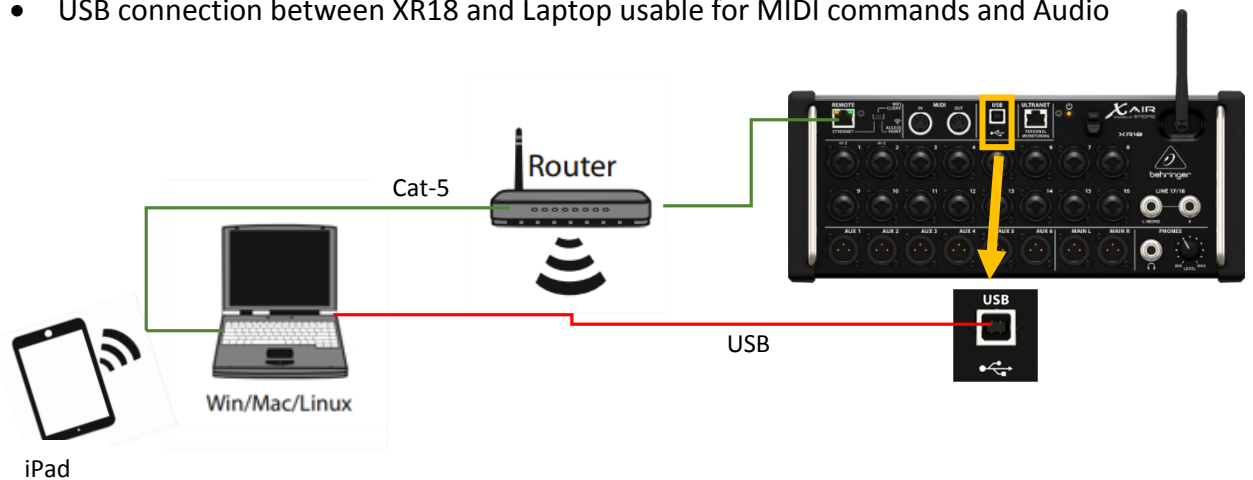


## 2) Record mixer automation MIDI data on computer via USB

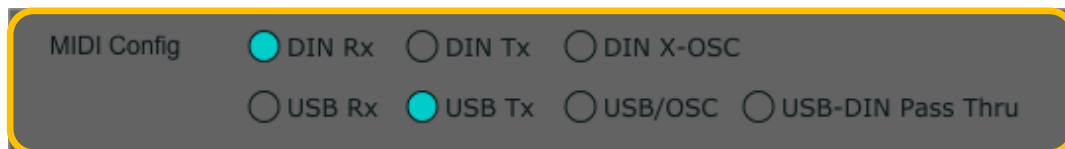


X Air App – MIDI Config settings (Setup -> Mixer)

- Send MIDI data from XR18 mixer to Computer to record e.g. fader automation
- Every active remote device (laptop, iPads,...) can generate automation data
- USB connection between XR18 and Laptop usable for MIDI commands and Audio

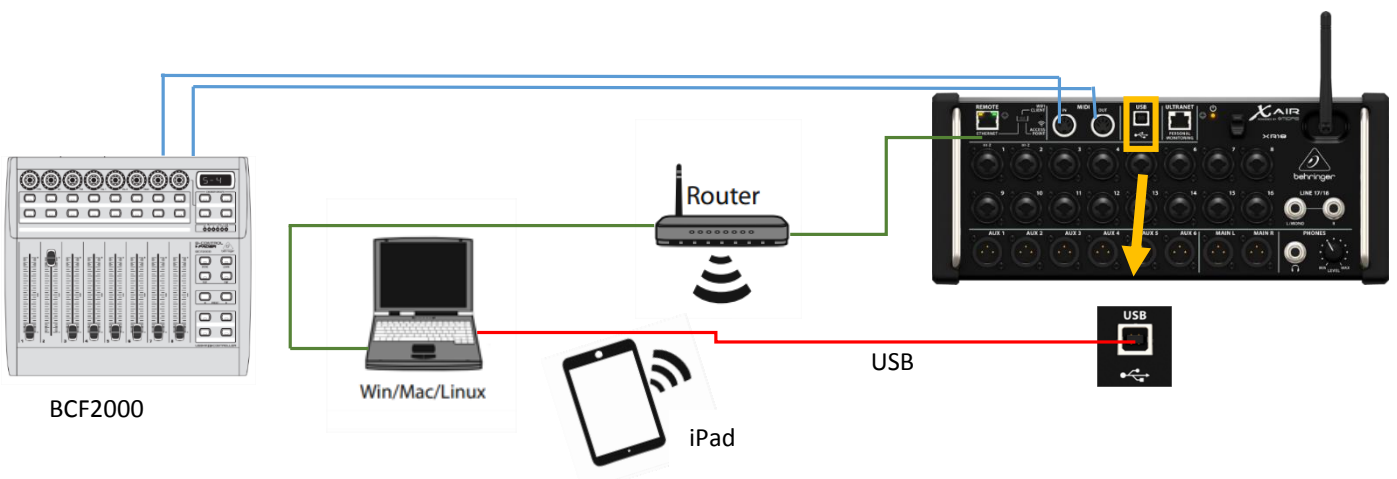


## 3) Record mixer automation MIDI data on computer using external MIDI controller

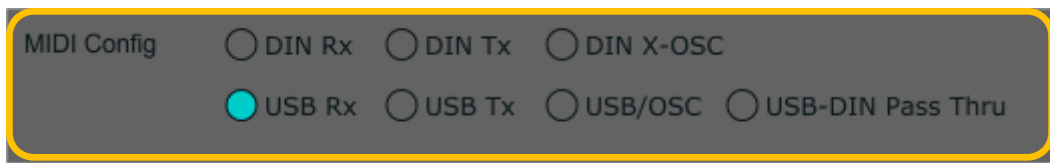


X Air App – MIDI Config settings (Setup -> Mixer)

- USB connection between XR18 and Laptop usable for MIDI commands and Audio
- Send MIDI data from MIDI Remote controller to record e.g. fader automation
- Every active remote device (Laptop, iPads,...) usable as a source to generate data

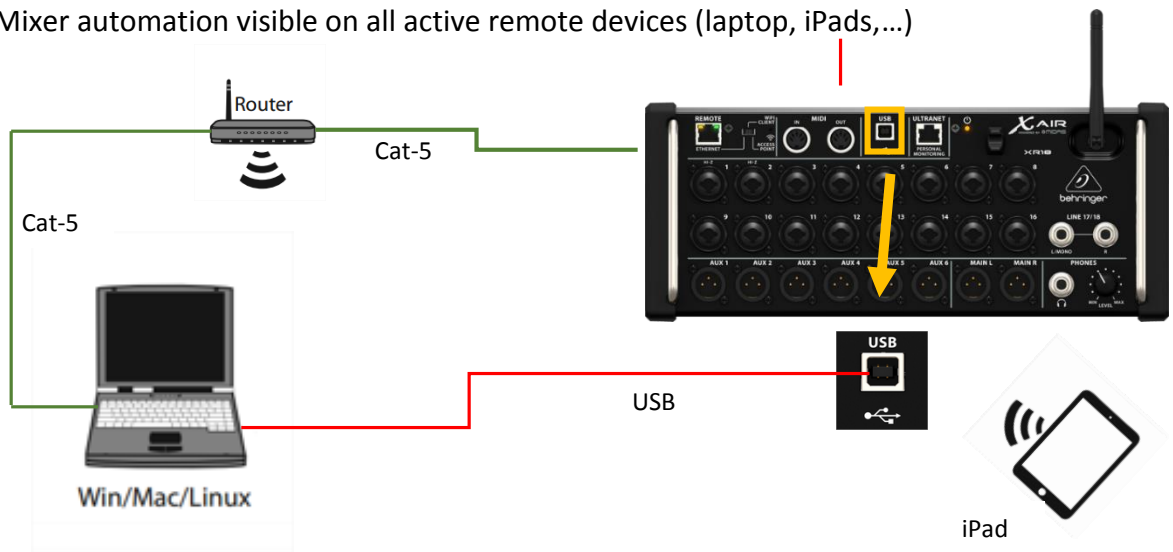


#### 4) Send mixer automation from computer

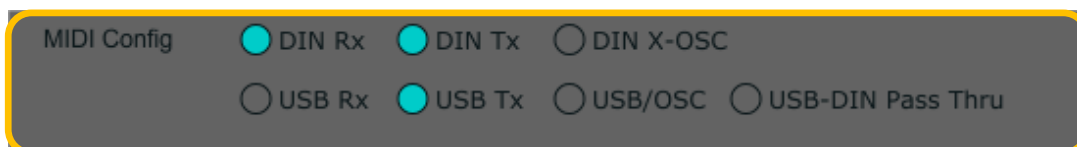


X Air App – MIDI Config settings (Setup -> Mixer)

- Connection between XR18 and Laptop usable for MIDI commands and Audio
- Send MIDI automation data from computer that affects XR18 mixer e.g.
  - Snapshot recall at certain show-positions via Program Change
  - Automated Fader movements
  - Mute automation
- Mixer automation visible on all active remote devices (laptop, iPads,...)

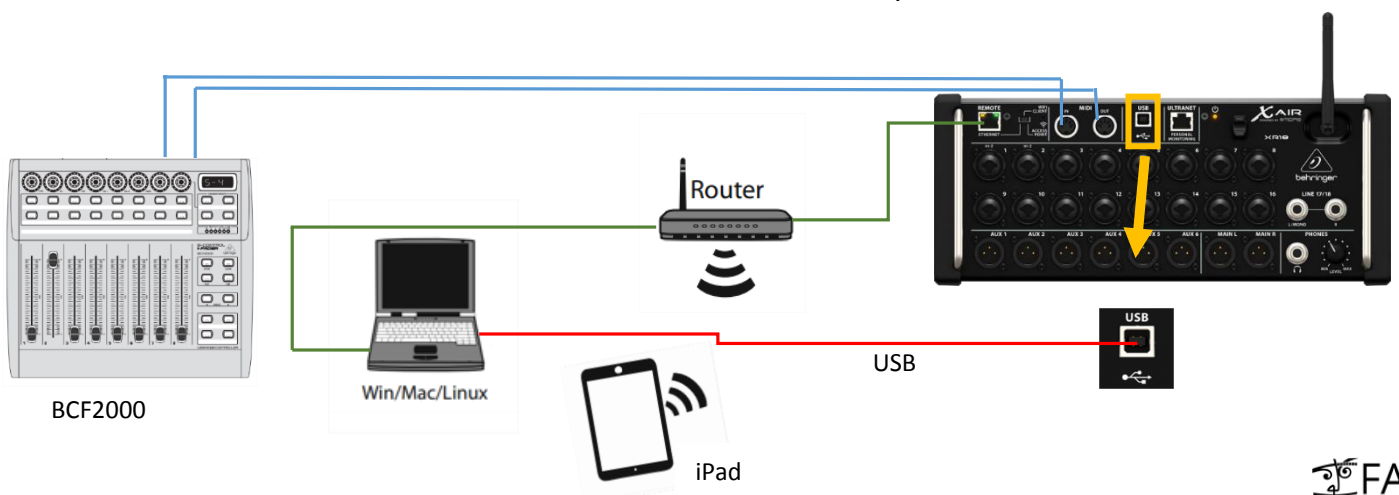


#### 5) Send mixer automation from computer + MIDI remote-controller connected



X Air App – MIDI Config settings (Setup -> Mixer)

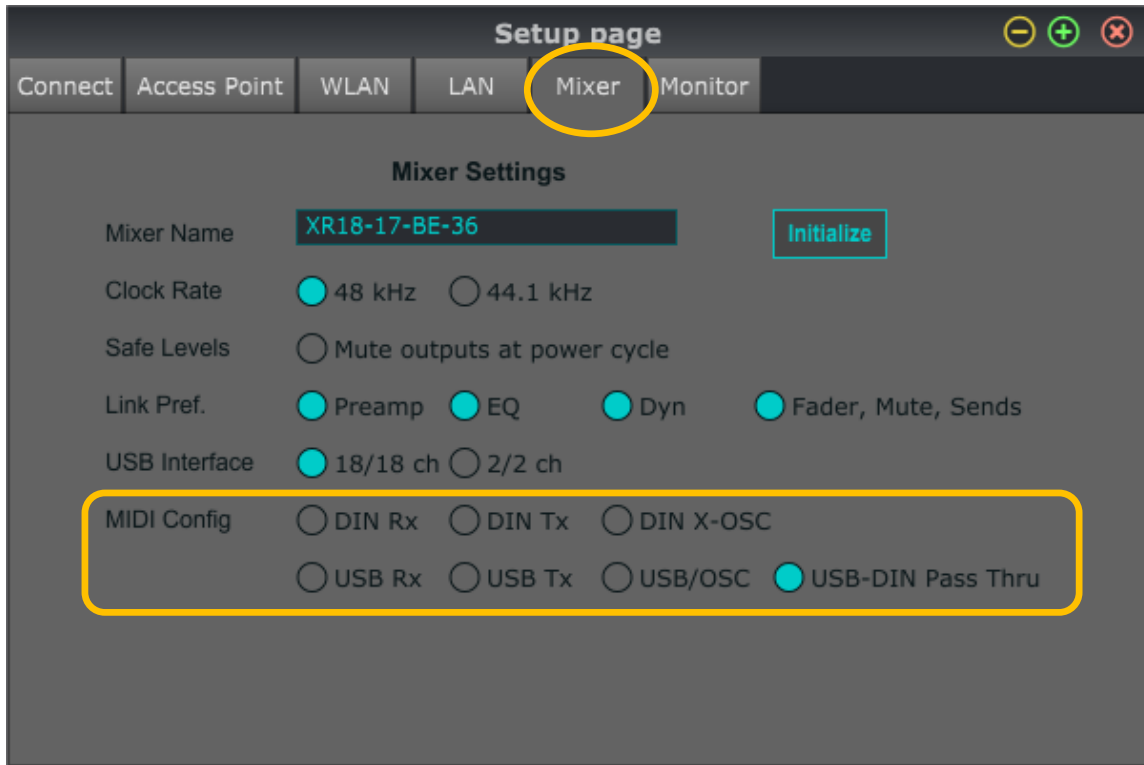
- Same as above (4)) but including external MIDI DIN device
  - Automation data from computer visible on external MIDI controller
  - External MIDI controller can moreover actively control XR18



## b.) Use MIDI without controlling/affecting XR18 mixer / MIDI-USB interface mode

Make sure the XR18 is connected. At present (-> March 2015) MIDI settings are only available via XR18 PC/MAC/LINUX application.

2. Launch XAir app and open "Setup" menu. Click on "Mixer" tab to find "MIDI Config" menu.



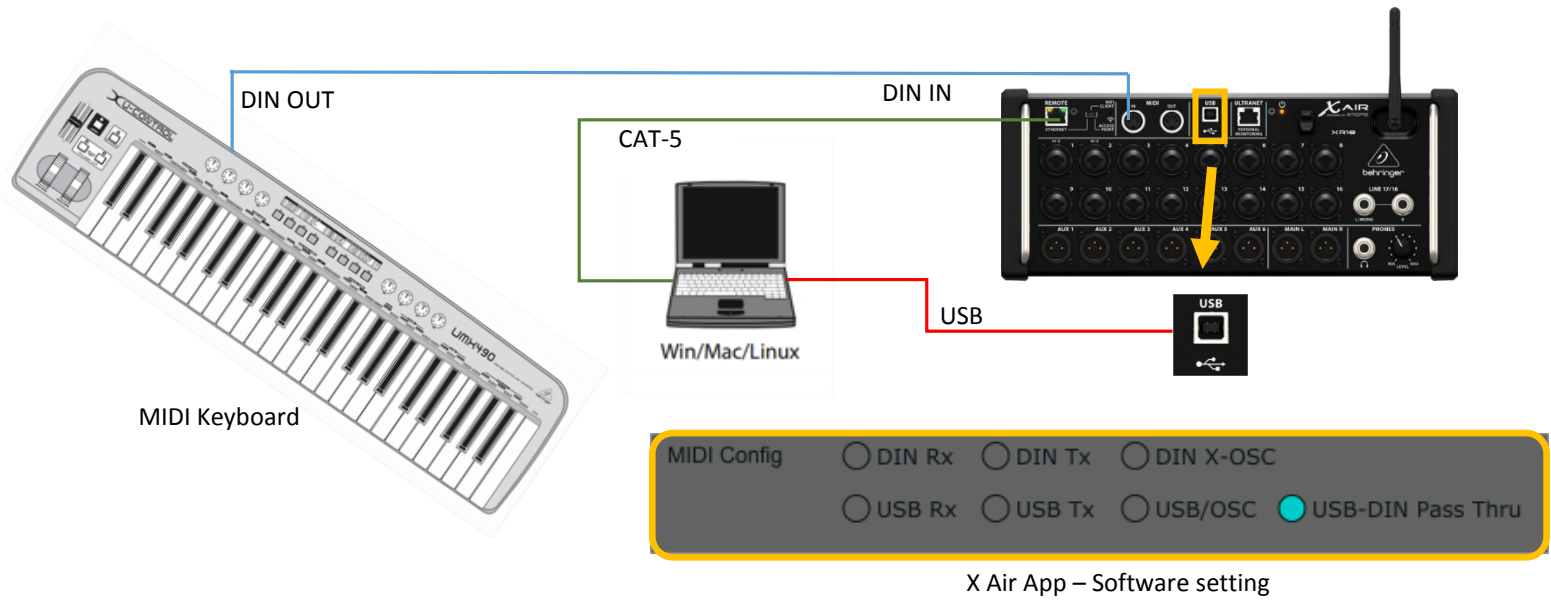
- ➔ Ensure "USB-DIN Pass Thru" is checked
- ➔ All other settings (e.g. USB Rx, DIN Tx,...) are fully ignored (no matter if checked or not)
- ➔ "USB-DIN Pass Thru" mode means:
  - All MIDI signals at front-panel "DIN IN" always reach computer via USB
  - All MIDI signals from computer available on "DIN OUT"
  - XR18 mixer is never affected (-> MIDI signals pass thru)
- ➔ USB connection can carry audio and MIDI signals simultaneously

### Application examples (hook-up diagrams see next page)

- 1.) External MIDI Keyboard connected to DIN ports + VST audio on XR18 via USB returns
- 2.) DIN OUT provides MIDI commands from computer to affect external MIDI devices

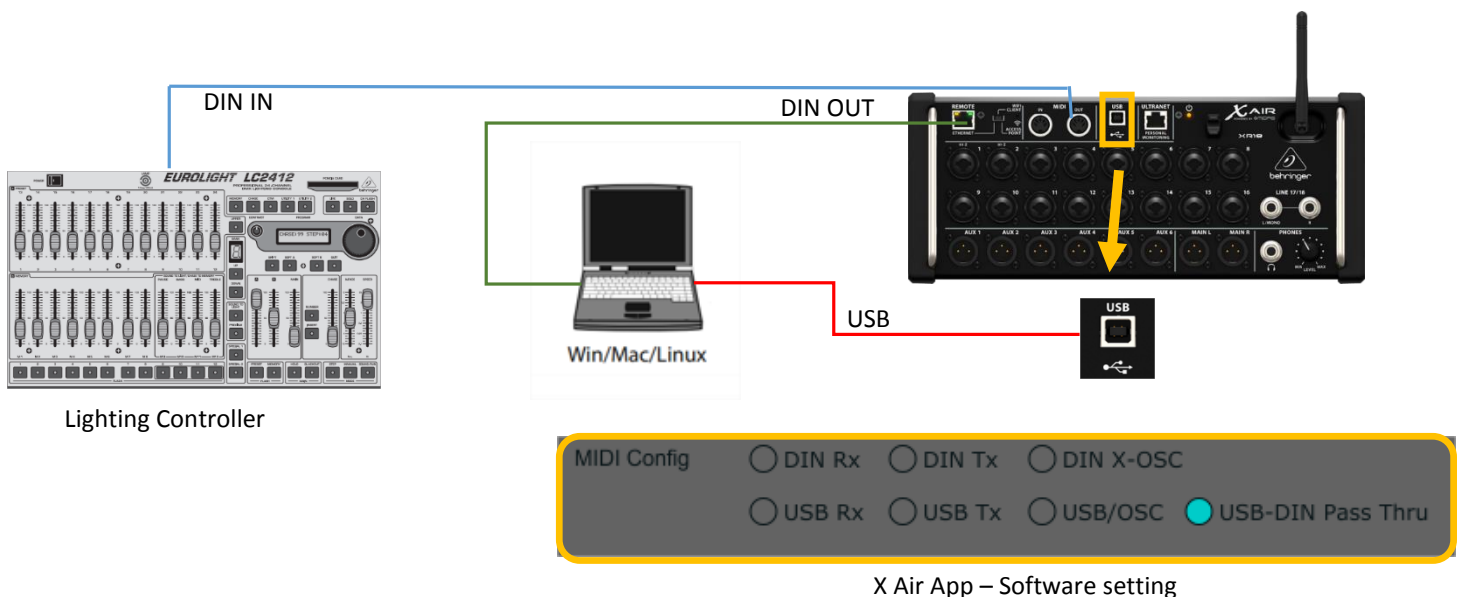
1) External MIDI Keyboard connected to DIN port + VST audio on XR18 via USB returns

- MIDI devices connected to DIN ports send all MIDI data straight to computer via USB
- XR18 mixer is not affected at all (MIDI messages bypass actual mixer)
- For VST-Instrument playback declare respective XR18 channels as USB returns
- Connect more MIDI devices to DIN Input via separate MIDI merger box



2) DIN OUT provides MIDI commands from computer to affect external MIDI device

- All MIDI data from computer is sent to front DIN OUT (MIDI bypasses actual mixer)
- Send Program Changes to e.g. change presets of your Effects units
- Send MIDI CC data to e.g. change fader-setting of a lighting controller
- Connect more MIDI devices to DIN Output via external MIDI thru box



## MIDI IMPLEMENTATION CHART – BEHRINGER X-AIR 18

<b>Fader</b>					
CH Faders	1	CC	0-15	0...127	Input Channels 1-16
CH Faders	1	CC	16	0...127	AuxLineIn 17-18
CH Faders	1	CC	17-20	0...127	FX1-4 Return (stereo)
Send Faders	1	CC	21-26	0...127	Aux1-6 / Subgroup
Send Faders	1	CC	27-30	0...127	Fx1-4
Main Fader	1	CC	31	0...127	Main LR (stereo)
<b>Mute</b>					
CH Mutes	2	CC	0-15	0/127	Input Channels 1-16
CH Mutes	2	CC	16	0/127	AuxLineIn 17-18
CH Mutes	2	CC	17-20	0/127	FX1-4 Return (stereo)
Send Mutes	2	CC	21-26	0/127	Aux1-6 / Subgroup
Send Mutes	2	CC	27-30	0...127	Fx1-4
Main Mute	2	CC	31	0/127	Main LR (stereo)
<b>Panorama/Balance</b>					
CH PAN	3	CC	0-15	1...127	Panorama Input Channels 1-16, 64=center
CH PAN	3	CC	16	1...127	Balance AuxLineIn 17-18, 64=center
CH PAN	3	CC	17-20	1...127	Balance FX1-4 Return, 64=center
Aux PAN (Subgroup)	3	CC	21-26	1...127	Panorama Aux1-6 / Subgroup, 64=center
Main Balance	3	CC	31	1...127	Balance Main LR, 64=center