

FACE ACADEMY

XR18 User Guide

Usage with external router – step-by-step



- ✓ Reliable remote-control for critical performances
- ✓ No dependency on Wireless transmission
- ✓ More remote-devices simultaneously
- ✓ Flexibility for strategic positioning



Mario van Helden

Sales Development Specialist

mario.vanhelden@face-de.eu

XR18 User Guide – Usage with external router

The Behringer XR18 is equipped with a built-in WiFi router. Switched to its’ “Access Point” mode users can remote-control the XR18 immediately out-of-the-box with up to 4 devices simultaneously. This certainly has great advantages:

Advantages of internal WiFi router (“Access Point” operation)

- No external equipment (Router or Ethernet cable) required to get started
- Zero setup or configuration time – get connected instantly
- XR18 is a true single all-in-one device – just one mains connection required
- Integrated DHCP Server – XR18 automatically leases IP addresses to connected devices

XR18 is truly ultra-portable & purely plug & play.

However, for critical jobs where uninterrupted control is paramount (e.g. live-situation with audience) this configuration is risky resp. can be insufficient performance-wise.

Disadvantages of internal router in WiFi mode (“Access Point”)

- WiFi operation is generally unsecure for mission-critical jobs
- 2.4 GHz band is very crowded (WLAN, Hotspots, Wireless audio on stage, Bluetooth, etc.)
- Internal router can’t handle more than 3-4 remote-devices
- Only WEP password protection for WiFi signal
- Field-strength might be critical -> positioning options of remote-devices limited

To ensure uninterrupted control XR18 can be used with an external router via Ethernet.

All desired remote-devices can then be connected to the external router (wirelessly or wired).

Advantages of external router:

- No need to purely rely on WiFi - cable connection to external router
- Wireless remote devices (e.g. tablets) use 5GHz WiFi band (provided router is 5GHz capable)
- More remote-devices can be connected & be used simultaneously (up to 10)
- WPA/WPA2 key-protection for WiFi network
- External antenna for higher field-strength can be used
- More flexibility where to strategically position XR18 and remote-devices (on-stage <-> FOH)

Reset XR18 network parameters

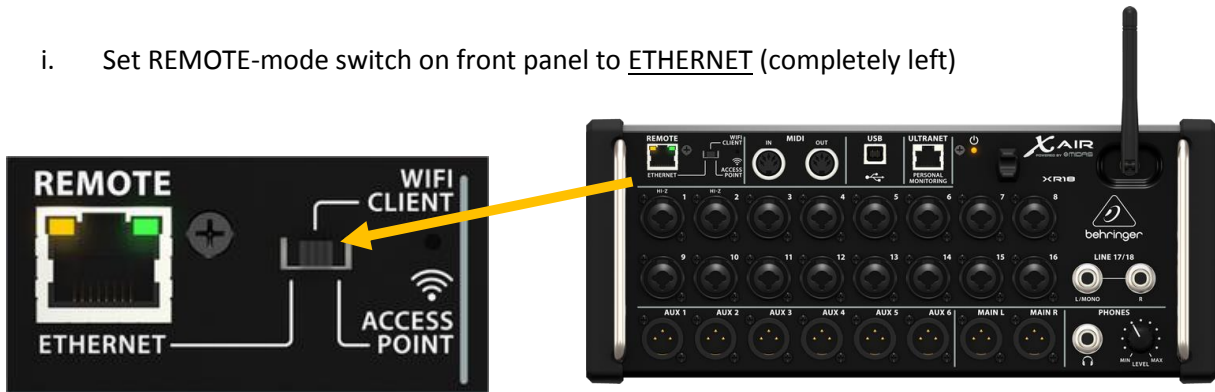
IF no specific network parameters were set beforehand, please reset XR18 network settings before getting started. To do this: Press and hold the reset buttons for **2-3 seconds** (see pic below).

ATTENTION: If you hold the reset-button for 10 seconds the whole mixer will be reset!

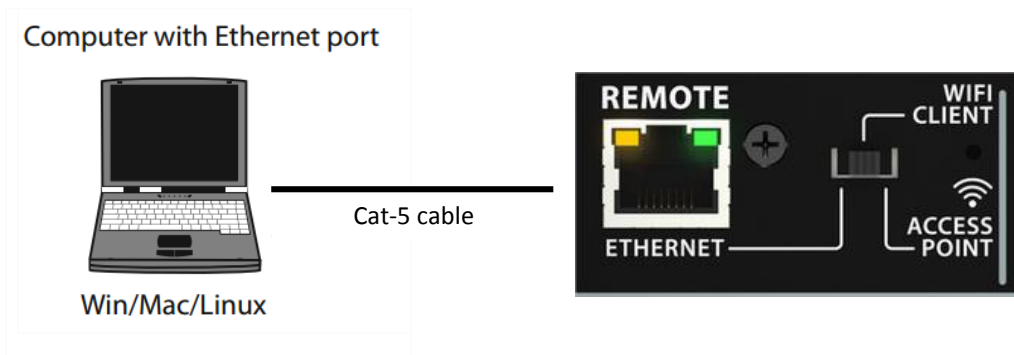


Step-by-Step Guide – XR18 usage with external router

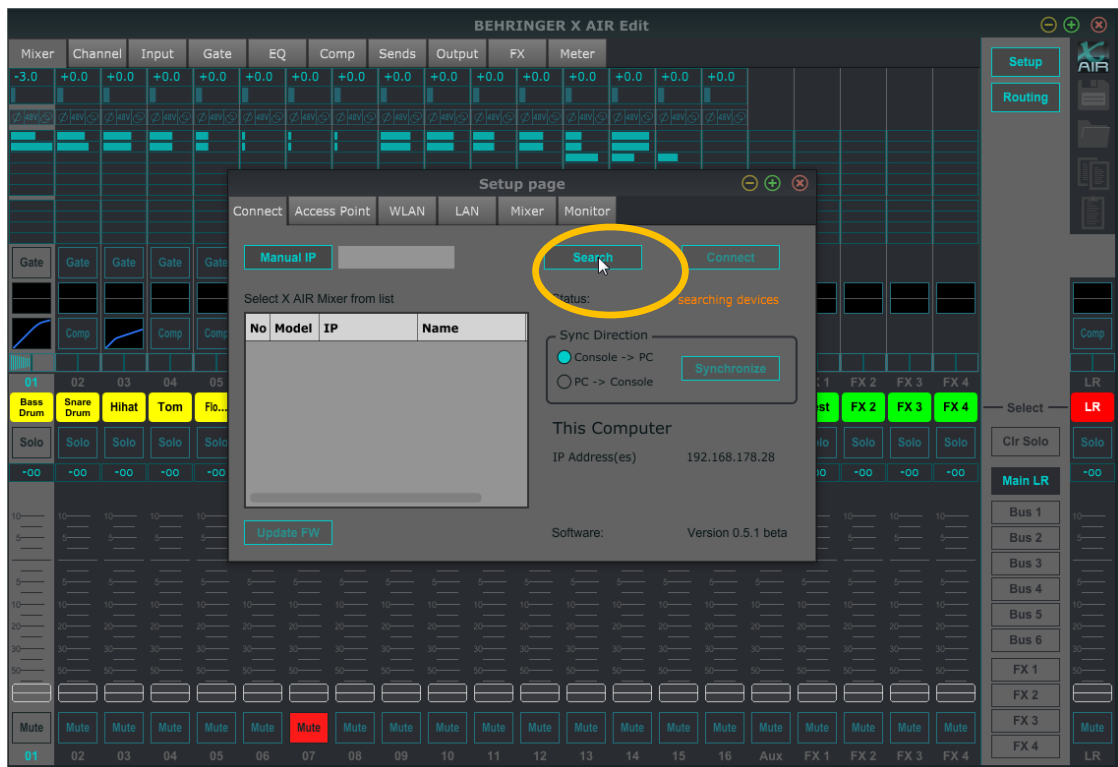
- i. Set REMOTE-mode switch on front panel to ETHERNET (completely left)



- ii. Establish point-to-point LAN connection to Laptop in order to configure XR18

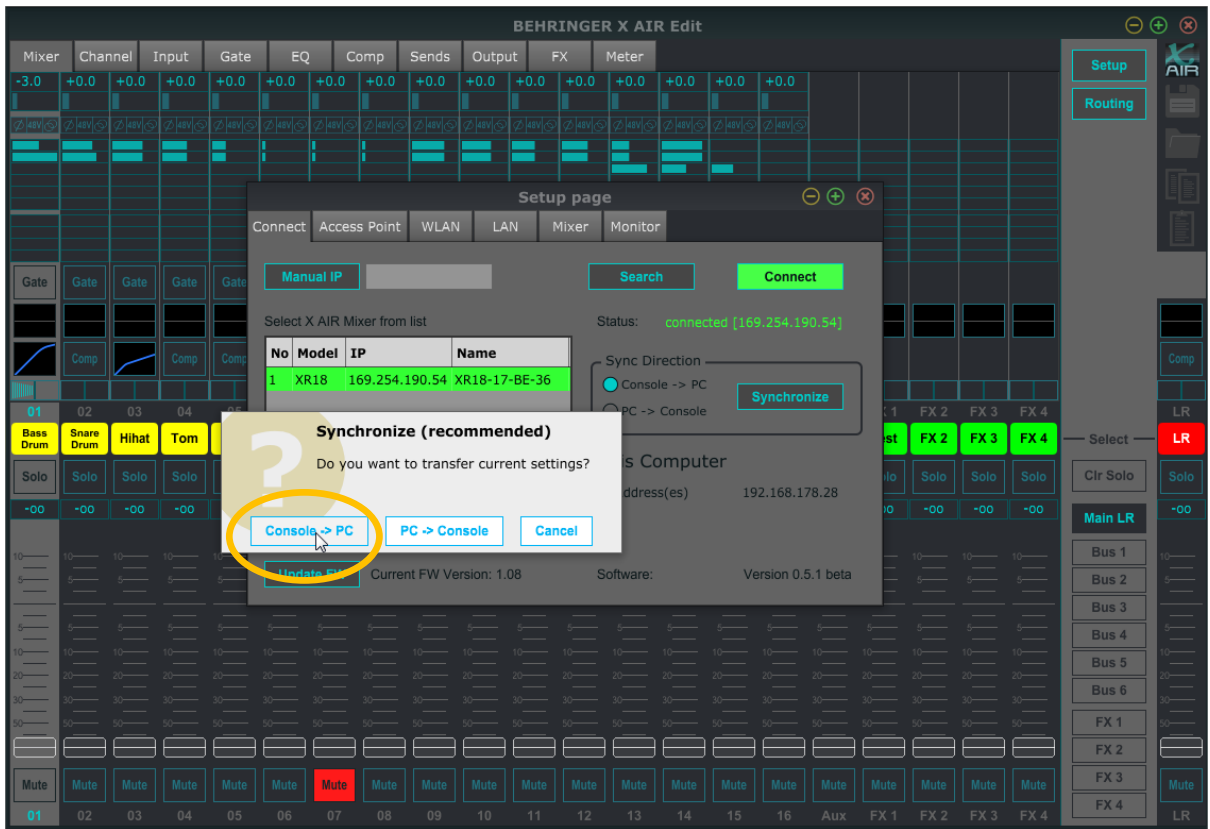


- iii. Launch XAIR App and open “Setup”. Click on “Search”. Detection may take up to 60 sec.

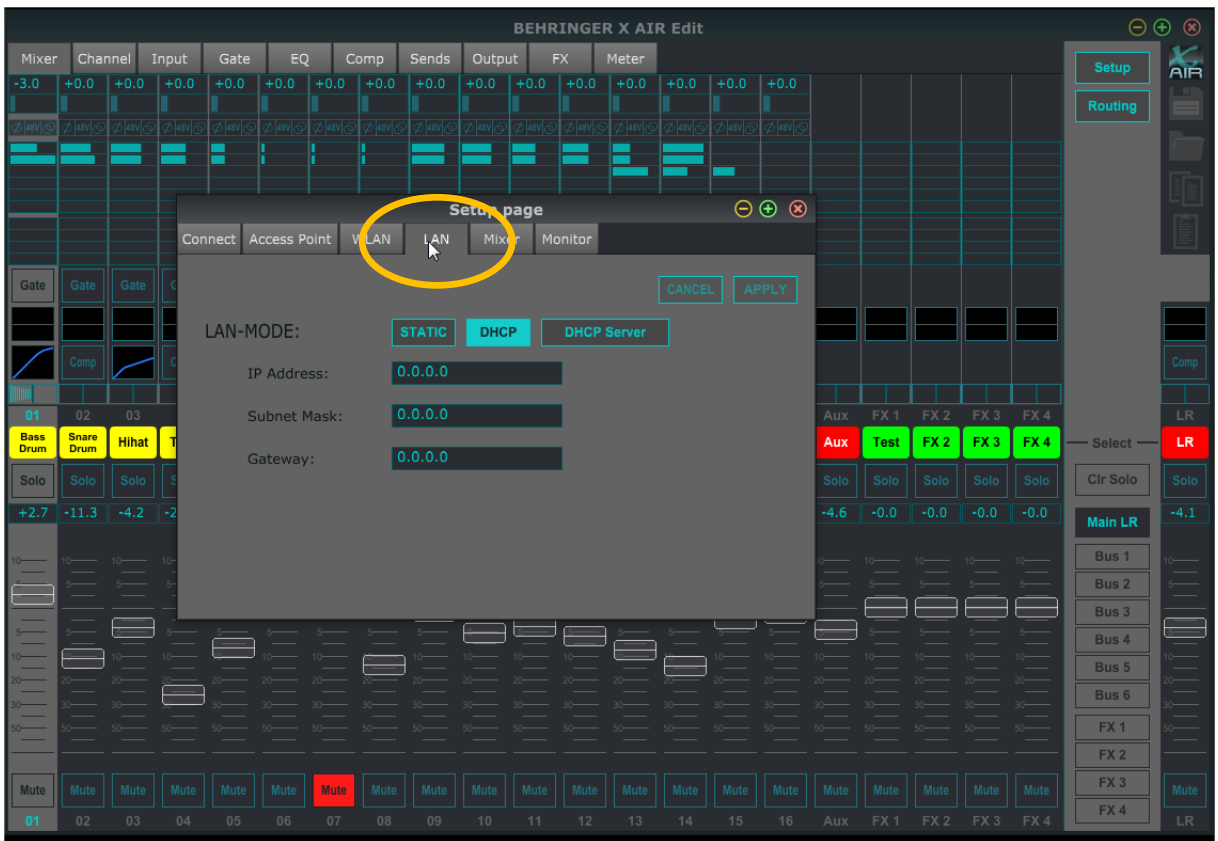


➔ **Can happen on MAC OSX:** In case XR18 is not detected please turn-off WiFi resp. ensure that the XR18 LAN is the only active network connection

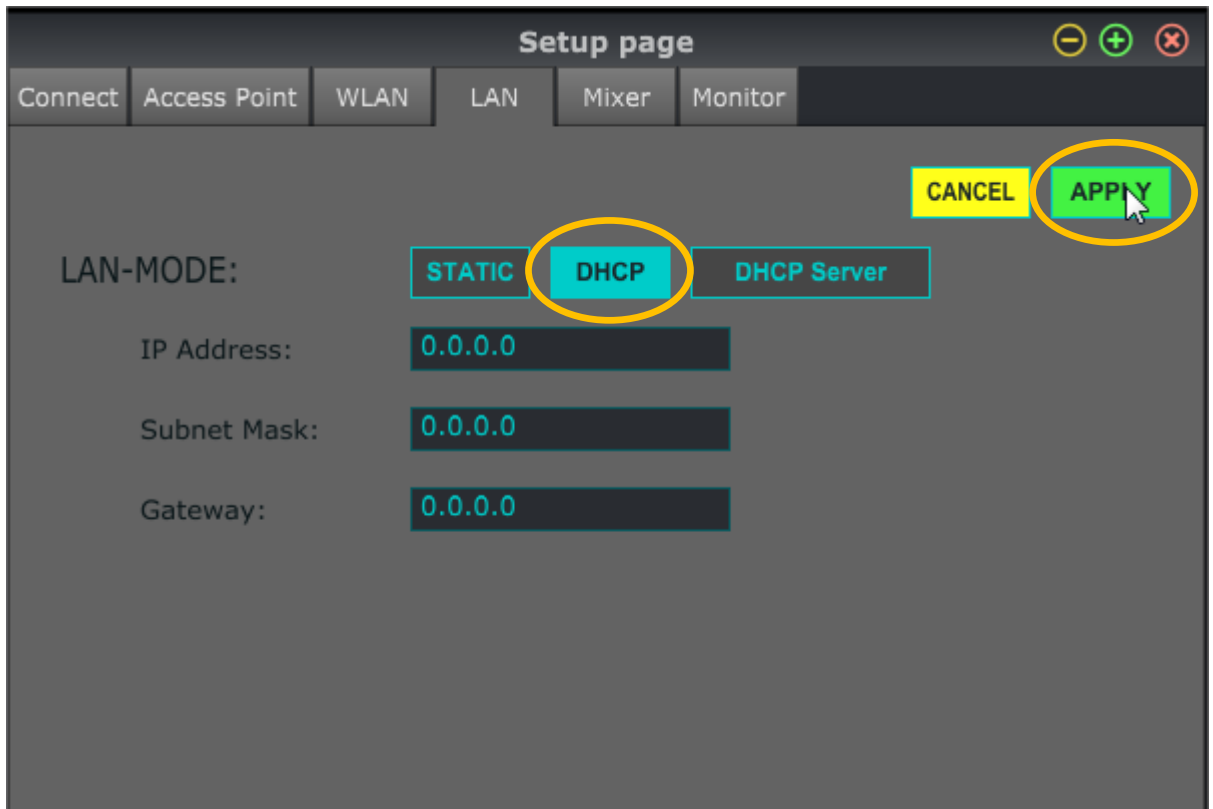
- iv. Select detected X-Air Mixer & click “connect”. Select “Console -> PC” as “Sync Direction”.



- v. X-Air App now displays real-time settings of mixer. Click on “Setup” again and select “LAN”



- vi. There are three connection-modes when using LAN (see below). Please select “DHCP” and click on “apply”. XR18 is now set to DHCP (client) connection mode.



Three LAN connection mode options

DHCP

- Recommended setting for this application (-> connection to external router)
- XR18 is configured as DHCP client
- XR18 requests IP address lease from external DHCP-enabled router

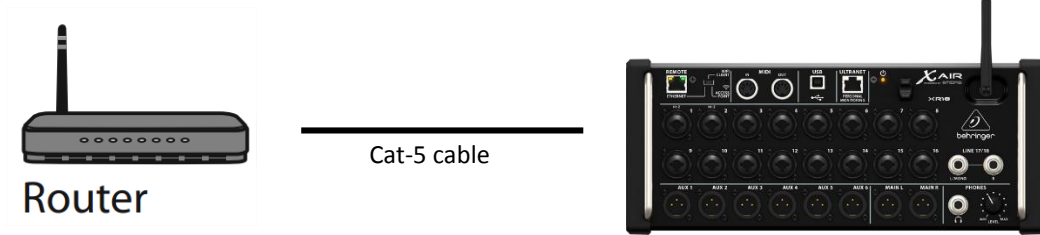
DHCP Server

- XR18 is in charge as DHCP server
- XR18 owns IP addresses and leases them to remote-devices that want to connect
 - XR18 always is 192.168.1.1
 - XR18 leases IP addresses 192.168.1.101 – 192.168.1.132
- Recommended for
 - Point-to-point connection to Laptops (reduces connection time massively)
 - Network-switches
 - Routers without DHCP

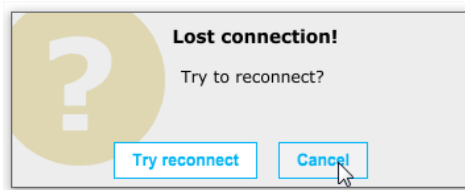
Static

- XR18 uses specific IP address, Subnet Mask and Gateway (values need to be entered)
- Ensures clear identification of XR18 in an existing network environment
- Reliable access e.g. in fixed network installations
- Only recommended for network-experts

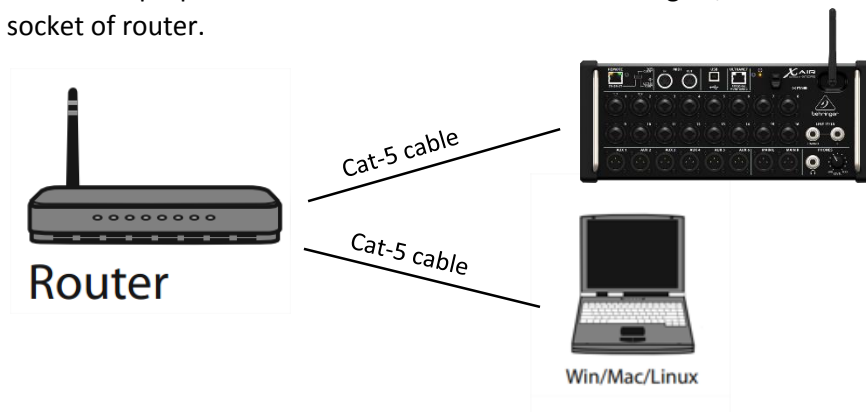
- vii. Disconnect Ethernet cable from Laptop. Connect XR18 to a free port of external router. Don't use "Internet" or "DSL" socket of router. Set Remote-mode switch to "WiFi Client" for 5 seconds; then put it back to "Ethernet".



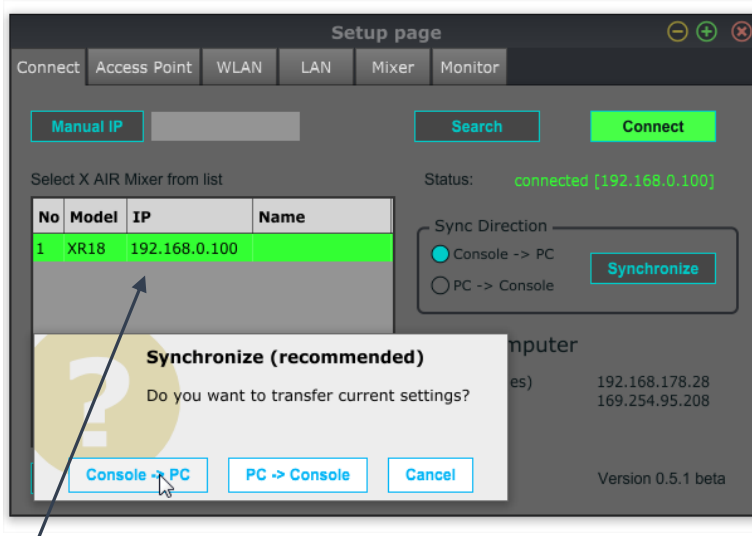
After a few seconds X Air App will report that connection is lost. Click on "Cancel".



- viii. Connect Laptop to external router via Ethernet cable. Again, don't use "Internet" or "DSL" socket of router.

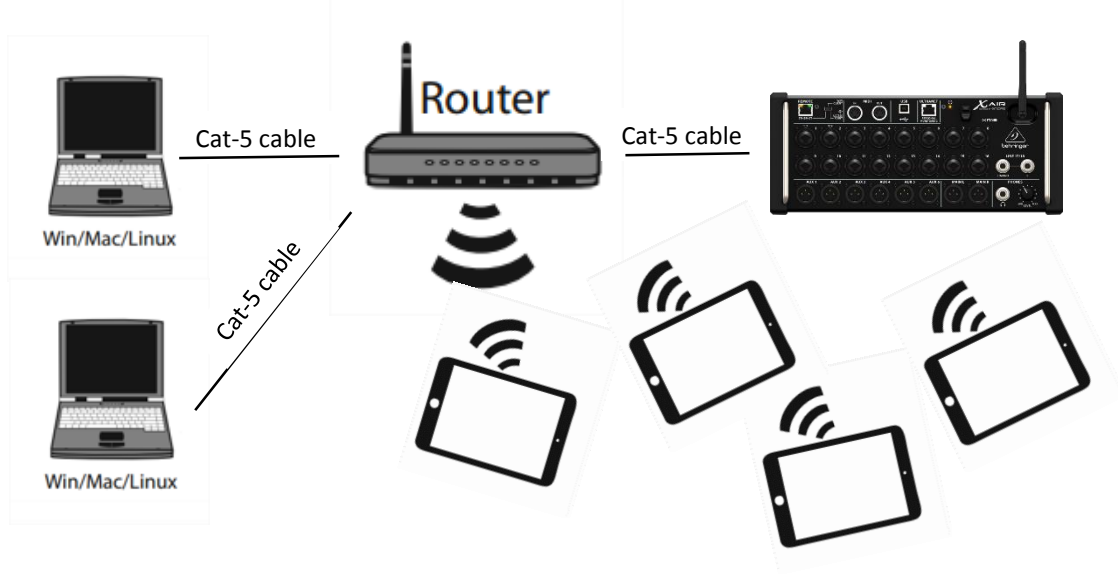


- ix. XAir App (Laptop): Open "Connect" tab of "Setup" page. Click Search. Select detected XR18 model and click "Connect". Select "Console -> PC" as Sync Direction. Laptop control is ready.



IP Address of XR18 is different now as it is leased from DHCP Server of external router.

- x. Connect further remote-devices to the external router e.g. second Laptop or multiple Tablets (iOS and Android apps available) via WiFi. Use 5 GHz WiFi band if router is capable.



With modern routers connecting up to 4 Laptops plus 10 Tablets simultaneously shouldn't be a problem. Every musician on stage can e.g. use his own tablet for setting-up an individual monitor mix.

How to connect iPad?

- Download XAIR iPad App from AppStore
- Select external router as WLAN device in your iOS settings
- Enter correct WPA-key (WPA protection recommended – check router settings)
- Launch XAIR iPad App – two ways to connect to XR18:
 - Just select automatically detected XR18 (most likely)
 - Enter IP address of XR18 manually (Address e.g. visible in XAIR PC App (see ix. above))

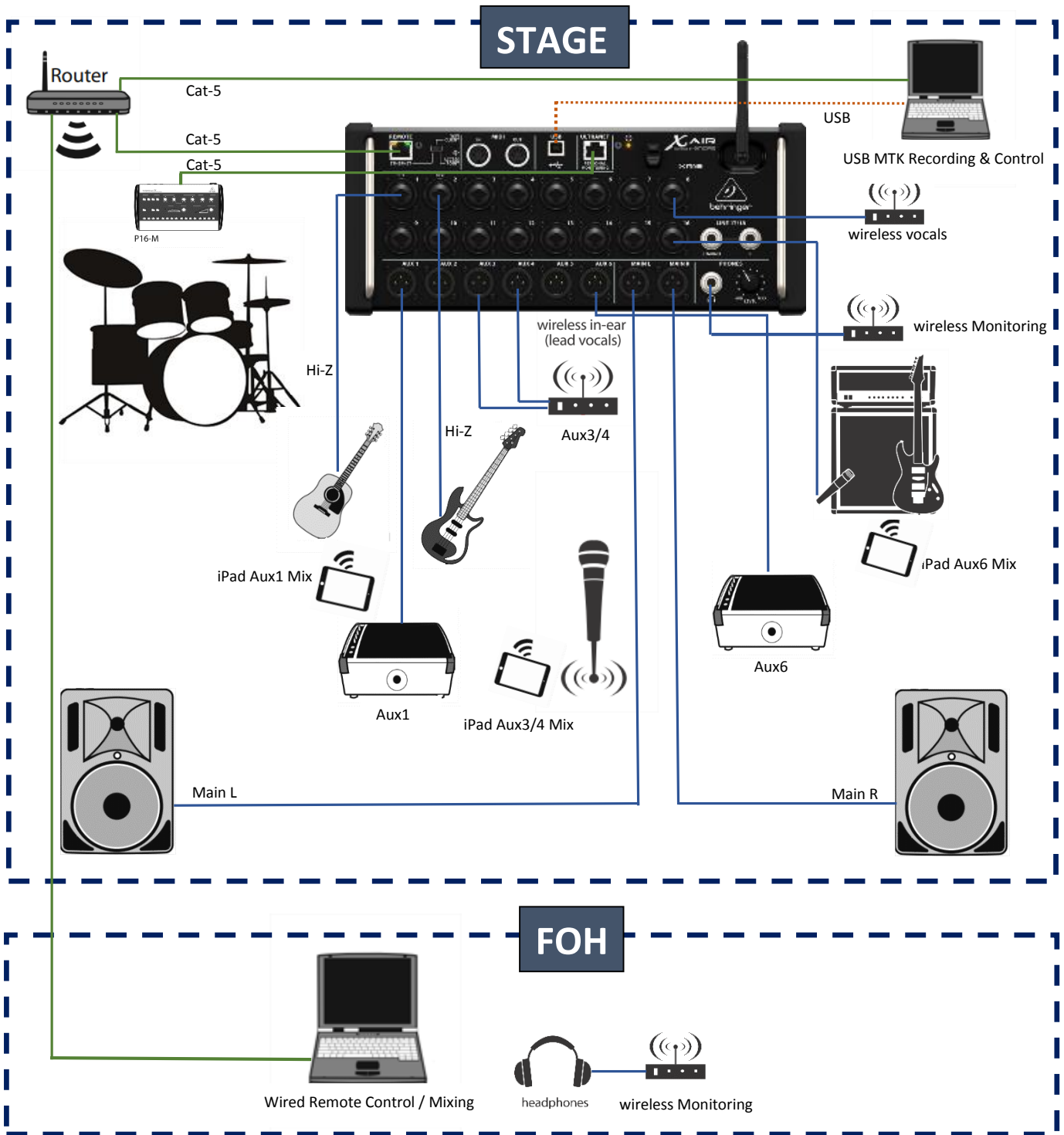
How to connect Android tablet?

- Download XAIR Android App from PlayStore
- Connect to external router in WLAN settings of Android
- Enter correct WPA-key (WPA protection recommended – check router settings)
- Launch XAIR iPad App – two ways to connect to XR18:
 - Click Search and select detected console
 - Enter IP address of XR18 manually (Address e.g. visible in XAIR PC App (see ix. above))

Further info

- ✓ For uninterrupted control use at least one wired remote-device (Laptop) during the show
- ✓ WiFi is generally risky – no matter if 2.4GHz or 5GHz band
- ✓ If you use wireless devices choose 5GHz (e.g. Apple iPad is 5GHz capable)
- ✓ WPA key protection is recommended
- ✓ In case a single Laptop is the only desired remote-device:
 - Use point-to-point connection with XR18 in “DHCP Server” mode (see chapter “vi.”)
 - Usage of external router not necessary

Hook-up example – Live performance Band – Ethernet mode – no dependency on WiFi



Overview

- XR18 on stage in Ethernet mode (DHCP Client) Cat-5 connection to Dual-band WiFi Router
- Laptop at FOH and Stage-side for reliable wired remote-control
- Laptop on stage simultaneously captures 18 track live-recording
- 5 GHz WiFi connection to musicians' iPads on stage for controlling individual monitor-mixes
- Individual monitor mixes are sent via Aux Outputs to Monitors or in-ear
- Acoustic Guitar & Bass directly connected to High-Z inputs without DI-boxes
- FOH Speaker connected to Main L/R Output