

NetBox

for XL2 Sound Level Meter



NetBox with 3G Modem
for unattended noise monitoring
with the XL2 Sound Level Meter

The NetBox connects the XL2 Sound Level Meter to the internet for unattended noise monitoring. It transfers the measurement data to the fully-managed NoiseScout Web Portal in real time or provides a secure access to the instrument via the NTi Audio Gateway.

The NoiseScout solution brings your XL2 noise measurement data to your web browser. The NetBox retrieves the noise levels from the XL2 and forwards them via 4G, 5G, LAN or Wi-Fi to the NoiseScout servers (4G/5G using an external modem). All measurement levels are available online for live visualization and unattended monitoring with email alerts.

Alternatively the NetBox enables SFTP (Secure File Transfer Protocol) and remote COM port access to the XL2. The setup is plug-and-play. The recording of spectral data, 100 ms data logging, and event audio can be set up on the XL2. The resulting log files can then be retrieved remotely during a running measurement.



Live Noise Monitoring
on the NoiseScout Web Portal with
XL2 Sound Level Meter and NetBox

Key Features

- Secure 24/7 noise monitoring
- Communication 4G, 5G, LAN or Wi-Fi
- NoiseScout provides automatic email alerts
- Remote noise data collection (SFTP)
- Plug-and-play solution

Applications

- Base-line surveys for planning
- Construction site monitoring
- Road traffic noise monitoring
- Entertainment venue management
- Neighborhood noise pollution measurements
- Environmental & Community Noise Surveys



NoiseScout offers automated email alerts when noise limits are exceeded

Specifications

Online Communication	<ul style="list-style-type: none"> • NetBox (LAN & Wi-Fi ready) <ul style="list-style-type: none"> - LAN - Wi-Fi using an external USB Adapter - 4G/5G using an external modem
Additional Interfaces	<ul style="list-style-type: none"> • 4 x USB port • Auxiliary inputs/outputs (prepared for future use) • SD Card slot for service
Connections to XL2	<ul style="list-style-type: none"> • USB interface • Power supply (top-head rail connector)
Data Day Credits	<ul style="list-style-type: none"> • Required for the online data transmission • Includes 10 Data Day Credits • Data Day Credits apply to a single user account. • Credits may be shared among multiple XL2s.
NoiseScout - Managed Mode	<ul style="list-style-type: none"> • Transfers measurement data and limit alerts from XL2 to NoiseScout server • Requires NoiseScout 365 or Data Credits Package for pay-per-use: One Data Day Credit is debited for each calendar day on which data was download. • Mobile Data Volume Expected Usage < 3 GB / month
NoiseScout - Gateway Mode	<ul style="list-style-type: none"> • Remote access to all measurement data • Full remote control of XL2 Sound Level Meter • Requires NoiseScout 365 or Data Credits Package for pay-per-use: One Data Day Credit is debited for each calendar day on which data was download. • Mobile Data Volume Expected Usage <ul style="list-style-type: none"> - Status (Bitmap): 200 MB / hour for each viewer - XL View: 1 MB / hour for each viewer
Monitoring Features	<ul style="list-style-type: none"> • NetBox supply voltage • Communication signal strength and type • Ambient temperature
LED Indications	<ul style="list-style-type: none"> • Power: power supply active • XL2: connected with XL2 • Server: connected with NoiseScout server • Data: data transmitting in process
Power Supply	<ul style="list-style-type: none"> • 7.5 -16 VDC • Power consumption <ul style="list-style-type: none"> - NetBox typical 3 Watt - XL2+NetBox typical 6 Watt
Temperature range	-10 °C to +50 °C (14 °F to 122 °F)
Humidity range	5 % to 90 % RH, non-condensing
Dimensions L x W x H	138 x 138 x 30 mm (5.4" x 5.4" x 1.2")
Weight	290 g (10.2 oz.)
Scope of Supply	<ul style="list-style-type: none"> • 10 Data Day Credits • Mains power adapter 12 V, 2.0 A, 100-240 V • Power cable to XL2
Order Information	<ul style="list-style-type: none"> • NetBox (LAN & Wi-Fi ready) 600 000 450 • 4G/LTE Gateway for NetBox 600 076 011 (worldwide excluding Americas, China, Japan) • 4G/LTE Router for NetBox 600 076 012 (worldwide) • NoiseScout 365 or Data Credits 600 000 437 <ul style="list-style-type: none"> - 30 Days 600 000 490 - 100 Days 600 000 491 - 366 Days (1 year) 600 000 492 - 1096 Days (3 years) 600 000 493

All information subject to change without notice.

Setup and Power Supply Configurations

This part describes the recommended setup and power supply configurations of the NoiseScout measurement station for short-term and long-term noise monitoring applications.

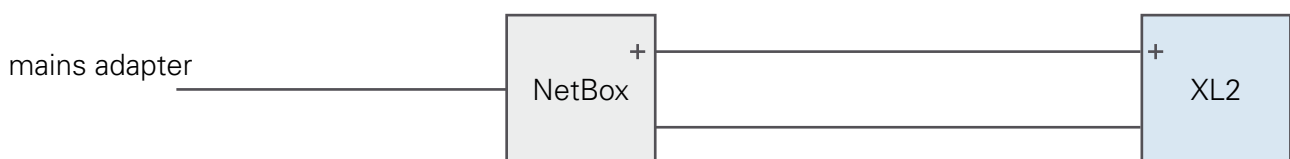


The internal XL2 battery can't be continuously charged by an external power supply for long-term applications. Therefore either replace the internal XL2 battery in annual intervals or operate the measurement station without the internal XL2 battery.

The manufacturer guidelines of the solar controller has to be followed. High electrical currents may be applicable. Select connection the cable type accordingly.

Mains Power

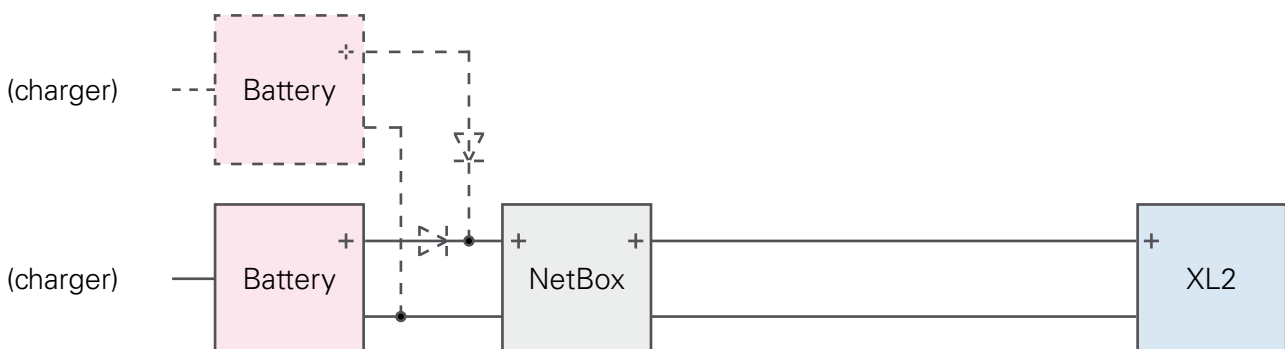
- Situation
 - mains power available
 - no back up for mains power interruptions
- Solution
 - default mains adapter (12V) supplies NetBox
 - power supply is looped through the NetBox to the XL2 Sound Level Meter
- What happens upon Mains Power Loss
 - noise measurement is stopped (in case of used internal XL2 battery after 4 hours); XL2 powers down
 - all measurement data recorded prior the power outage is saved on the meter
 - NetBox is powered off; no remote monitoring or data communication is possible
- NoiseScout - Managed Modus
 - customer can be automatically informed by email about the power loss for immediate action



Configuration 1: Mains Power

Battery Power Supply

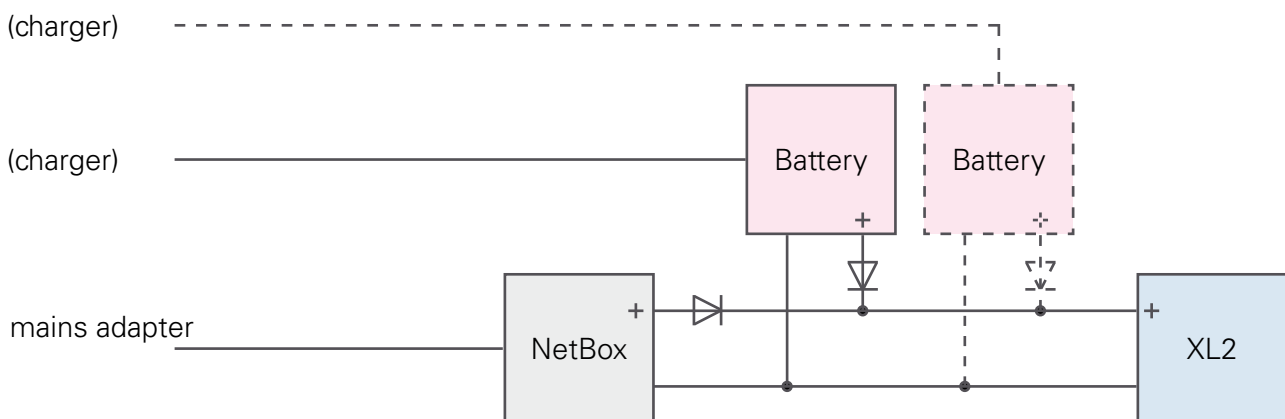
- Situation
 - mains power only optional available
 - external battery pack(s) power the noise monitor station
- Solution
 - external battery pack(s) power the NetBox
optional are the battery packs connected to an individual charger
 - power supply is looped through the NetBox to the XL2 Sound Level Meter
- What happens upon Battery Pack is down
 - noise measurement is stopped (in case of used internal XL2 battery after 4 hours); XL2 powers down
 - all measurement data recorded prior the power outage is saved on the meter
 - NetBox is powered off; no remote monitoring or data communication is possible
- NoiseScout - Managed Modus
 - customer can be automatically informed by email about the power loss for immediate action
- Note
 - in case of Tracer battery packs are used, then utilize the accessory "Tracer Adapter Cable", NTi Audio # 600 000 478
 - the Tracer Adapter Cable supports the auto-start of the NetBox or XL2 upon the battery was completely empty and is charged again; the power supply will be connected to the NetBox or XL2 via a relay only upon a minimum charge condition is reached.



Configuration 2: Battery Power Supply

Mains Power Supply with Battery Backup

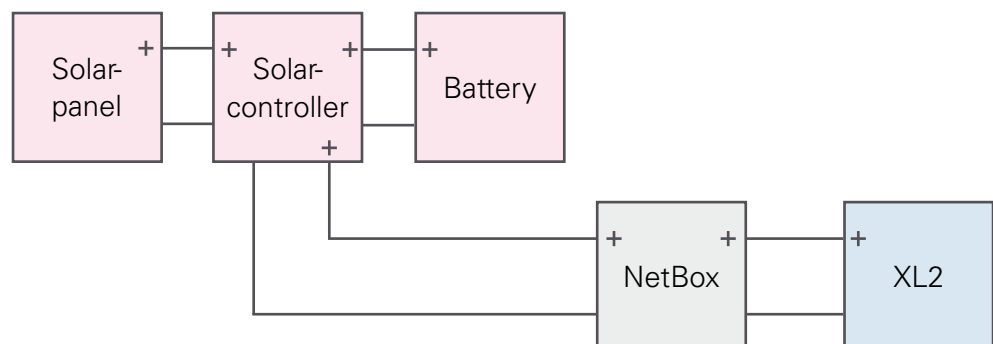
- Situation
 - mains power available
 - external battery pack(s) serve as back up
- Solution
 - default mains adapter (12V) supplies NetBox
 - power supply is looped through the NetBox to the XL2 Sound Level Meter
 - external battery packs are connected for back up in case of mains power drops out (a charger is connected as applicable)
- What happens upon Mains Power Loss
 - external battery pack(s) power XL2 Sound Level Meter
 - noise measurement is continued as long as XL2 is powered by the external and internal battery
 - all measurement data is saved on the XL2; no data is lost
 - NetBox is powered off; no remote monitoring or data communication is possible
- NoiseScout - Managed Modus
 - customer can be automatically informed about mains power loss by email
 - the measurement data of the last 7 days is available on the meter - power up the NetBox again within latest 6 days to ensure continuous measurement data



Configuration 3: Mains Power Supply with Battery Backup

Solar Power

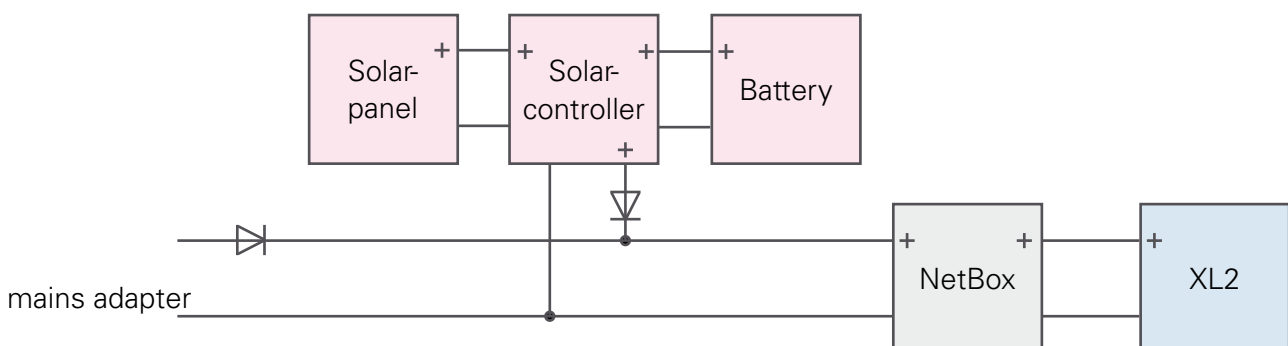
- Situation
 - no mains power available
 - solar panel powers the noise monitor station
- Solution
 - external battery pack supplies NetBox
 - power supply is looped through the NetBox to the XL2 Sound Level Meter
 - solar controller charges battery pack from the solar panel
- What happens upon Battery Pack is down
 - noise measurement is stopped (in case of used internal XL2 battery after 4 hours); XL2 powers down
 - all measurement data recorded prior the power outage is saved on the meter
 - NetBox is powered off; no remote monitoring or data communication is possible
- NoiseScout - Managed Modus
 - customer can be automatically informed by email about the test station power loss for immediate action



Configuration 4: Solar Power

Mains Power Supply with Solar Backup of Test Station

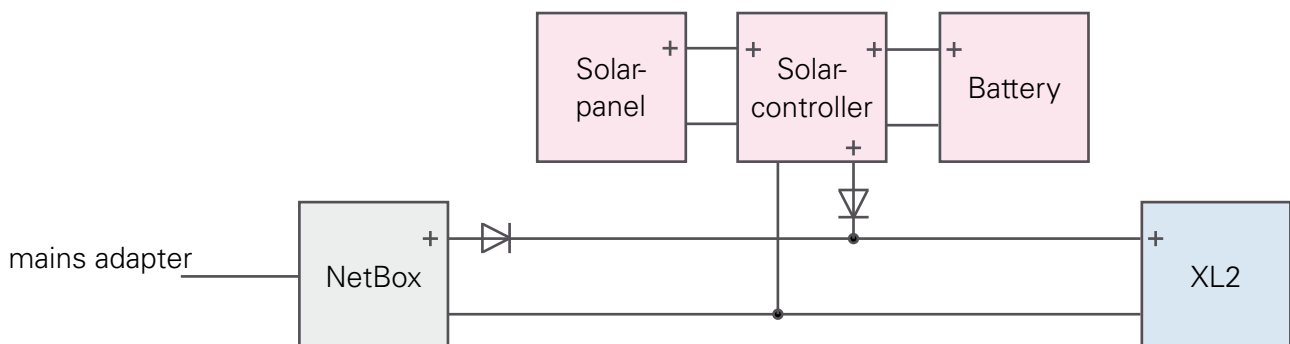
- Situation
 - mains power available
 - solar panel serves as backup power for the noise monitor station
- Solution
 - default mains adapter (12V) supplies NetBox
 - power supply is looped through the NetBox to the XL2 Sound Level Meter
 - solar controller is connected for back up in case of mains power drops out and charges battery from the solar panel
- What happens upon Mains Power Loss
 - battery pack powers NetBox and XL2 Sound Level Meter
 - noise measurement is continued as long as XL2 is powered by the external and internal battery
 - all measurement data is saved on the XL2; no data is lost
 - NetBox is powered on; remote monitoring or data communication is possible
- NoiseScout - Managed Modus
 - customer can be automatically informed by email about the test station power loss for immediate action



Configuration 5: Mains Power Supply with Solar Backup of Test Station

Mains Power Supply with Solar Backup of XL2

- Situation
 - mains power available
 - solar panel serves as backup power for the noise monitor station
- Solution
 - default mains adapter (12V) supplies NetBox
 - power supply is looped through the NetBox to the XL2 Sound Level Meter
 - solar controller is connected for back up in case of mains power drops out and charges battery from the solar panel
- What happens upon Mains Power Loss
 - battery pack powers XL2 Sound Level Meter
 - noise measurement is continued as long as XL2 is powered by the external and internal battery
 - all measurement data is saved on the XL2; no data is lost
 - NetBox is powered off; no remote monitoring or data communication is possible
- NoiseScout - Managed Modus
 - customer can be automatically informed by email about the mains power loss for immediate action; the XL2 continues the measurement

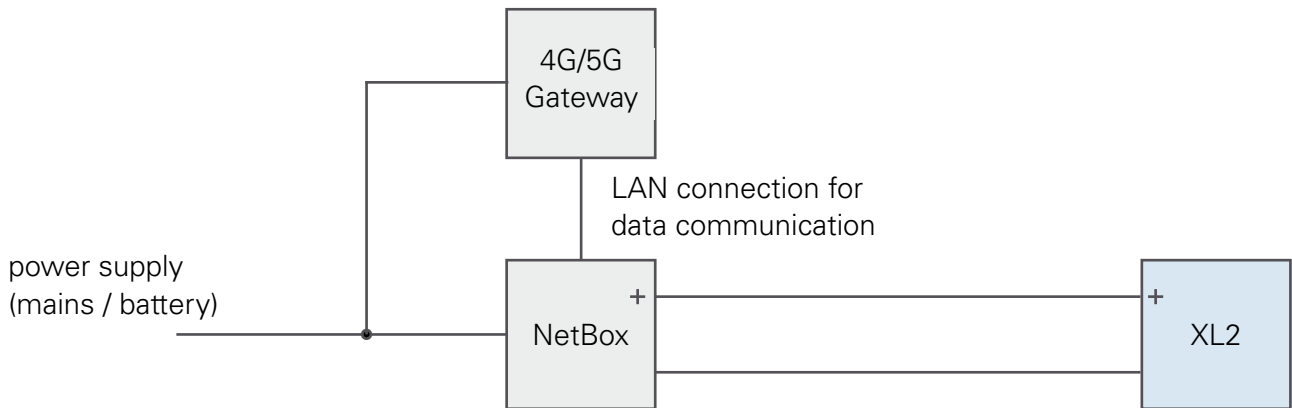


Configuration 6: Mains Power Supply with Solar Backup of XL2

Using 4G/5G Gateway or Router

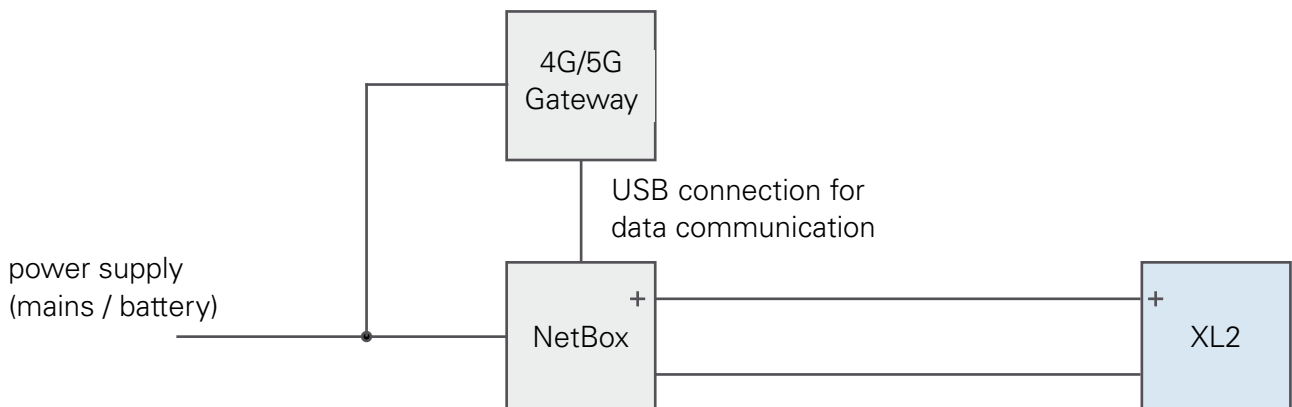
The NetBox (LAN & Wi-Fi ready) may be operated with an external Gateway or Router to support 4G/5G mobile networks.

The external Gateway or Router shall be connected directly to the power supply - in parallel to the NetBox; this ensures reliable operation.



Configuration 7: External 4G/5G Gateway or Router

Devices, that support RNDIS or a virtual network interface via USB, such as the 4G/LTE Gateway, NTi Audio # 600 076 011, can be connected to the NetBox via USB to save energy.



Configuration 8: External 4G/5G Gateway with RNDIS