Mounting diagram

Side view

4
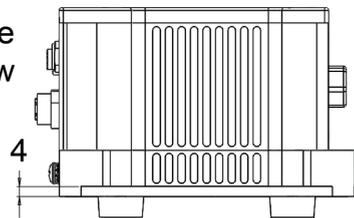
All measurements are in millimeters.
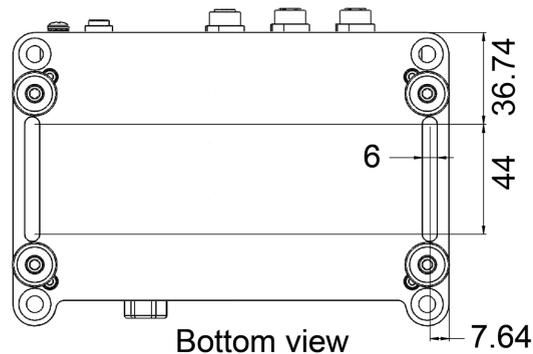
36.74

6

44

7.64

Bottom view

CE

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e·DAQ XR lite

EXRLCPU Quick Start Guide

In the box

- EXRLCPU and connector dust caps
- 2.5mm ball hex driver (SO-123-1003006)
- Four (4) standoffs (SO-257-1003660) and four (4) flat head screws
- Power cable (1-EXR-PWR-PT-2), Ethernet cable (1-KAB2106-2) and two (2) CAN male/pigtail cables (1-SAC-TRAN-MP-2-2)
- eDAQXR/eDAQXR-lite Safety instructions
- eDAQXR-lite Quick Start Guide
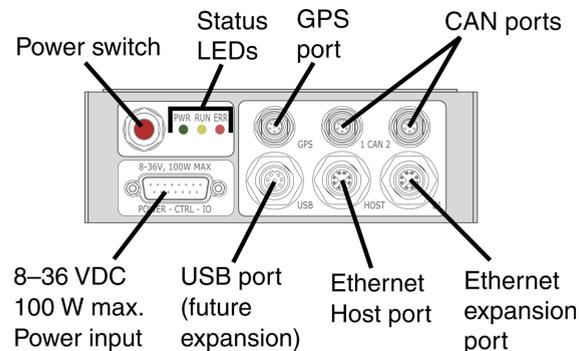- USB flash drive

EXRLCPU Status LEDs

POWER (green)

Off	Unit is off.
On	Unit is on and ready. Preceding sequence of LEDs flashing indicates the system is loaded.
4 Hz	Unit is shutting down, rebooting or updating firmware.
2 Hz	Unit is in locate mode.

RUN (yellow)

Off	No test run is in progress.
On	After power supply is disconnected, backup capacitors hold a charge. **Opening the CPU before the LED is off may result in damage.**

EXRLCPU Data Controller

Power switch • Status LEDs • GPS port • CAN ports

8–36 VDC 100 W max. Power input • USB port (future expansion) • Ethernet Host port • Ethernet expansion port

RUN (yellow)

0.5 Hz	Test Setup task running.
1 Hz	Backup capacitors are charging from the connected power supply while CPU is switched off.
1 Hz	Remote control is enabled, but no Test run is in progress (CPU on, solid green LED).
8 Hz	Test run is in progress.

ERROR (red)

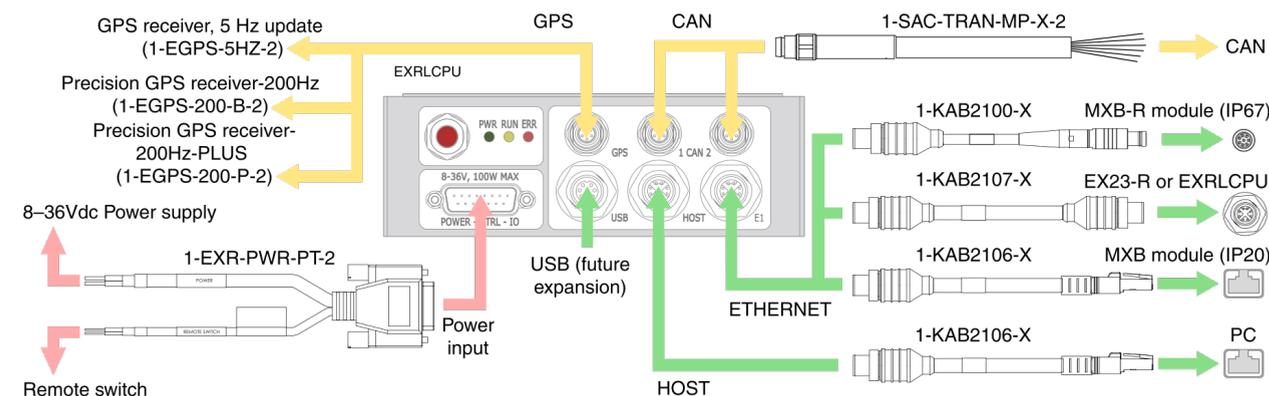| Off	No error.
On	Unit error. Purge System logs to turn off LED.
1 Hz	Low storage (less than 2 MB remains).

Connections

1. Connect the 1-EXR-PWR-PT-2 power cable from the INPUT connector to a 8-36 V_{DC} power supply.
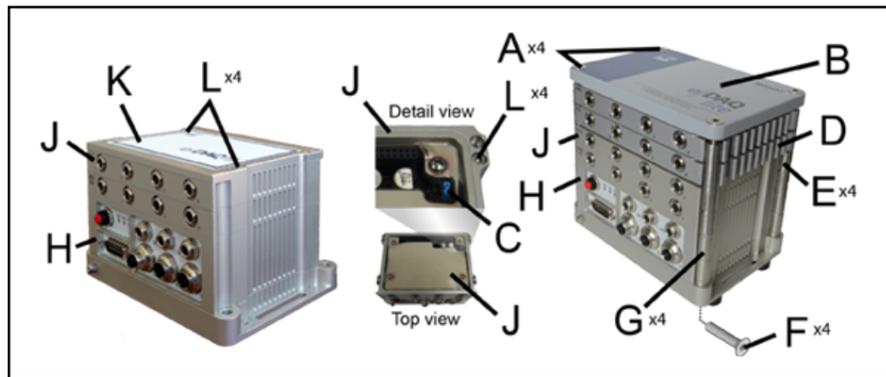
NOTE
If a switch is not connected to the red and black wires of the remote switch cable, make sure the wires are fully insulated from each other or solidly connected to each other to prevent accidentally turning the power off. If the wires are connected to each other and there is any chance of magnetic induction, do not coil the cable in a loop.

2. Connect the 1-KAB2106 Ethernet cable from the HOST connector to the host PC. The host PC network settings must be compatible with the main processor default IP address 192.168.100.101.

3. Connect desired transducers to GPS and CAN ports using appropriate cables.

4. Wait at least five seconds after supplying power to the unit.

5. Press and release the power button. The green LED turns on. Wait about 15 seconds for the unit to boot up.

6. Open a web browser and navigate to the default IP address 192.168.100.101. If the main processor is on a network with a DHCP server, use the HBM Device Manager (on the included USB drive) or contact your IT administrator to find out the IP address. If presented with a certificate warning, choose to proceed. The main processor web interface is displayed.

GPS receiver, 5 Hz update (1-EGPS-5HZ-2)
Precision GPS receiver-200Hz (1-EGPS-200-B-2)
Precision GPS receiver-200Hz-PLUS (1-EGPS-200-P-2)
8–36Vdc Power supply
1-EXR-PWR-PT-2
Remote switch
EXRLCPU
GPS   CAN
USB (future expansion)
Power input
ETHERNET
HOST
1-SAC-TRAN-MP-X-2   CAN
1-KAB2100-X   MXB-R module (IP67)
1-KAB2107-X   EX23-R or EXRLCPU
1-KAB2106-X   MXB module (IP20)
1-KAB2106-X   PC

Adding an EXRLCPU to eDAQ-lite layers

Required tools: #1 flat blade screw driver and 2.5mm ball hex driver (SO-123-1003006)

CAUTION
Failure to comply with safety requirements could result in bodily injury or damage to property. Only disassemble layers in ESD safe conditions. Install only one data processor layer on an eDAQ-lite layer stack.

NOTE
An eDAQXR-lite main processor can support eight connected eDAQ-lite layers (ELDIO-B, ELBRG, ELHLS and ELNTB). Any combination of these layers may be connected, within the power limit of 100W. Every layer in a stack must have a unique address (set using appropriate jumpers).

CAUTION
Backup capacitors of the EXRLCPU charge while power is supplied. After power supply is removed, the EXRLCPU lights the yellow LED until the charge depletes. Opening the CPU while the capacitors are charged exposes voltage potentials. Any object shorting these voltages could damage the EXRLCPU.

1. Turn off the eDAQ-lite main processor using the power switch and disconnect the power supply from the power connector.
2. Remove four (4) flat-head screws (A) and the lid (B) from the top of the eDAQ-lite stack.

NOTE
One O-ring or gasket must be present under each legacy layer and the legacy eDAQ-lite lid. Newer, CE-compliant layers contain an O-ring installed in a groove on the bottom of the layer or lid. Older, non-CE-compliant layers use a foam gasket and have no groove. Be careful to use only one correct O-ring or gasket. Some layers have unique standoffs. Keep standoffs with each layer.

3. Remove conditioning layers from the eDAQ-lite stack for use with the eDAQXR-lite main processor (H).
4. Make sure each layer is set with a unique address using appropriate jumpers (C). Make sure jumper addresses ascend from low to high (1, 2, 3…) over the main processor. The layer with the lowest address (1) is the closest to the main processor.

NOTE
If legacy and New-design layer rings are in a stack, the IP rating for the devices may be impacted. Always install standoffs (E) when using legacy layers in a stack.

5. **Legacy layers** (D) **only**: Install the four (4) standoffs (G (SO-257-1003660)) on the eDAQXR-lite base using four (4) flat head screws (F). Before installing a legacy layer ring, install four (4) guiding standoffs (E) using a flat blade screwdriver.
   New-design layers (J) **only**: Install four (4) screws (L) in each conditioning layer using the hex driver (SO-123-1003006). Alternate screw positions between layers.
   Mixed layers stack (D and J): First install New-design layers (J) on the eDAQXR-lite using hex head screws (L) and the hex driver (SO-123-1003006). Install the four (4) standoffs (G) on the eDAQXR-lite base using four (4) flat head screws (F), then install standoffs (E) and legacy conditioning layers (D).
6. Carefully align the pins and connectors and install a layer on the stack. Use care not to put undue strain on each layer. Repeat for each layer as necessary until all layers are attached.
7. Be careful not to scratch the lid. **Legacy layers** (D) **only or Mixed layers stack** (D and J): Install the lid (B) on the stack using four (4) screws (A), the standoffs (E and G) and screws (F).
   New-design layers (J) **only**: Install the lid (K) using four (4) screws (L) and the hex driver.
8. Connect the eDAQXR-lite main processor to an 8–36 V_{DC} power supply using the power cable (1-EXR-PWR-PT-2).
9. The system is now ready for use.

⚠ The 1-ELBAT-2, 1-ELBAT2-2, 1-ELBAT-CE-2 or the 1-ELBAT-2-CE-2 cannot be used with the 1-EDAQXRL-64-2 system. Connecting an ELBAT to the 1-EDAQXRL-64-2 will render the 1-EDAQXRL-64-2 inoperable so it will need to be sent to Service for repair.

Running a simple test

1. Open the web-based interface at the default IP address 192.168.100.101. In the header, click the **Setup** button to navigate to the Test configuration section.
2. In the Task pane, select Setup, then click the **New** button to define a new test setup. Edit the setup name and description as desired. The default name is "test_name."
3. In the Task pane, select Input channels, then click the **Add** button. Select the desired inputs and click **OK**. New channels show in the All input channels tab of the grid.
4. Click the **Save** button in the header or Task pane to save changes.
5. In the header, click the **Control** button to navigate to the Test and data control section. In the Task pane, Test control shows.

6. To view real time data, select a check box by a name in the Channels panel or drag a channel name into the Display Views panel. Select a chart in the **Select display type** dialog. The selected chart type shows for that channel in the Display Views panel. Click **Save**.
7. In the Task pane, click **Start** to run the test. The yellow LED flashes in the status bar of the web interface and on the unit. Real time data shows in the channel chart during the test run.
8. Click **Stop** to end the test run.
9. To download the SIE data file, click the file name in the Test run statistics panel.

Test run statistics
File name: test_name.sie

Live data displays

To change the display, click ▤ on the display panel and select a new chart type.

Strip chart display.
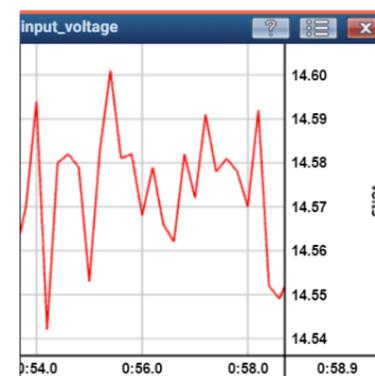
Digital meter display.

Restoring Default Settings

Administrator profile: *admin* **password:** *password*

To regain administrator access:
1. Power down the EXRLCPU.
2. Press and hold the power switch.
3. When the LEDs begin to flash, quickly release the power switch.

NOTE
No other profiles or users are affected.

Network Settings

To reset the module IP address to 192.168.100.101:
1. Power down the EXRLCPU.
2. Press and hold the power switch.
3. When the LEDs flash, stay on and start flashing again, release the power switch.

NOTE
This procedure activates the Default Auto Set network and does not delete any user-defined networks.