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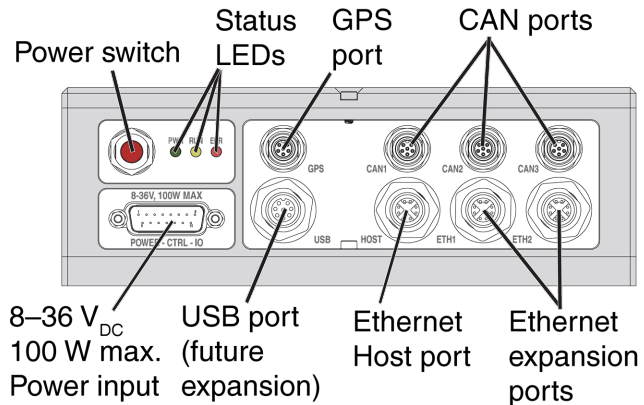


EXRCPU Quick Start Guide

### In the Box

- EXRCPU with dust caps
- 2.5mm ball hex driver (SO-123-1003006)
- Power cable (1-EXR-PWR-PT-2)
- Ethernet cable (1-KAB2106-2)
- Three (3) CAN male/pigtail cables (1-SAC-TRAN-MP-2-2)
- USB flash drive
- eDAQXR Safety Manual
- EXRCPU Quick Start Guide

### EXRCPU Data Controller



### EXRCPU 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. <b>Opening the CPU before the LED is off may result in damage.</b>
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

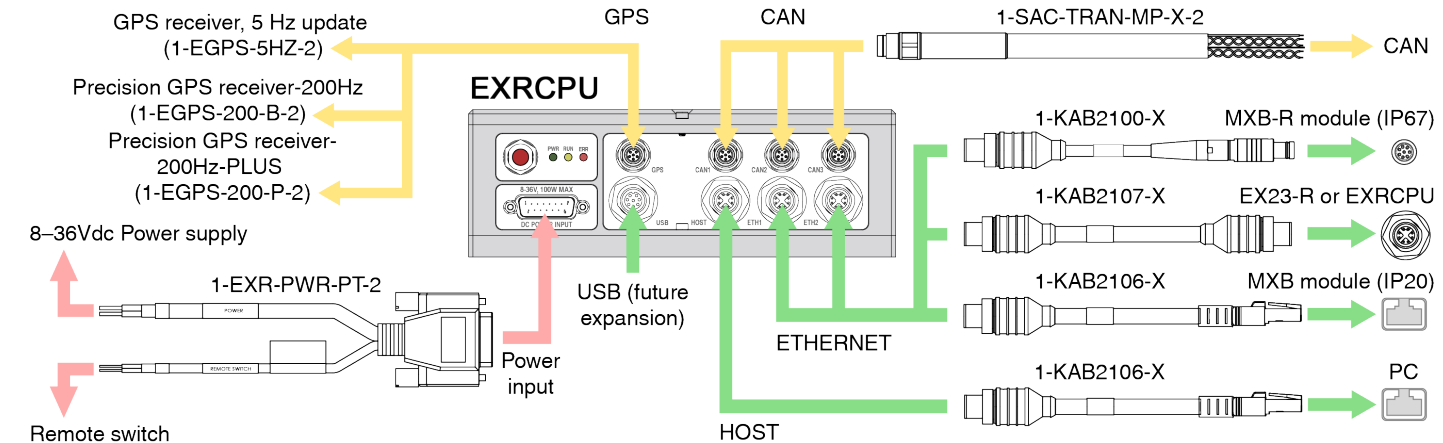
1. Connect the 1-EXR-PWR-PT-2 power cable from the INPUT connector to a 8-36 V<sub>DC</sub> power supply.

#### 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.



## Adding an EXRCPU to eDAQ layers

The interface for installing an EXRCPU on eDAQ layers (1-EXR-E-ADT-2) (B) (including six (6) 30mm screws) may be purchased separately from the EXRCPU. The interface is included in EXRCPU kits 1-EXR-E-32GB-2 and 1-EXR-E-64GB-2. See the EXRBRG Quick Start Guide for eDAQXR layer installation instructions on an EXRCPU.

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

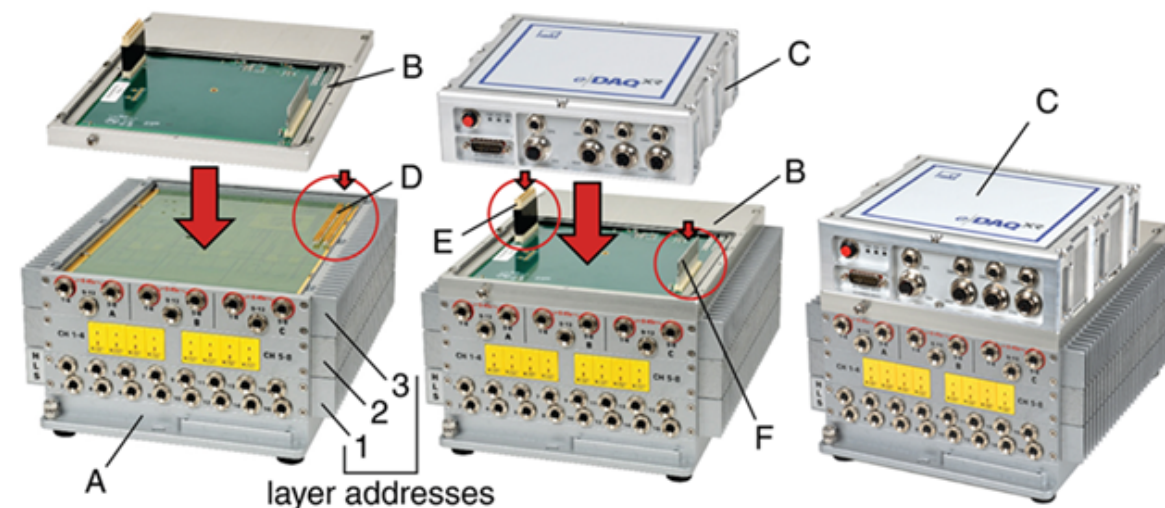
**CAUTION**  
Failure to comply with safety requirements could result in bodily injury or damage to property. Only disassemble layers in ESD safe conditions. Install only one data processor layer on an eDAQ layer stack. Do not install an EXRCPU on the interface before installing the interface on an eDAQ layer. Interface screw holes are only accessible before the EXRCPU is installed on the interface. High retention power connectors are used, therefore EXRCPU installation and removal may require some added force.

**NOTE**  
An EXRCPU can support eight connected eDAQ layers (EDIO, EBRG, EHLS, ENTB and EITB). Any combination of these layers may be connected, within the power limit of 100W. Every layer in an eDAQ stack must have a unique address (set using appropriate jumpers).

**CAUTION**  
Backup capacitors of the EXRCPU charge while power is supplied. After power supply is removed, the EXRCPU 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 EXRCPU.

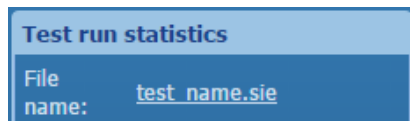
1. Remove the CPU layer from an eDAQ stack. Disassemble a stack from the top down, due to alternating screw positions in the rings. See Adding legacy eDAQ layers for more detailed information about assembling legacy eDAQ layers in a stack.
2. Install a base (A) (without a battery) under the bottom eDAQ conditioning layer using six (6) screws. An optional base kit (1-EBASE-EXRCPU-2), including six (6) 30mm screws, is sold separately.

3. Make sure each layer is set with a unique address using appropriate jumpers. Make sure jumper addresses ascend from low to high (1, 2, 3...) under the EXRCPU (C). The layer with the lowest address (1) is the greatest distance from the EXRCPU. Install the eDAQ layers on the top of the stack using six (6) screws each.
4. Carefully align the pins (D) and connectors and install the interface (1-EXR-E-ADT-2) (B) on the top eDAQ conditioning layer using six (6) 30mm screws. There are connectors, not adapters, between the interface and the top eDAQ conditioning layer.
5. Carefully align the pins (F) and connectors (E) and install the EXRCPU (C) on the interface (B) using eight (8) M3 8mm screws. Plastic tabs on the connector (E) are easily broken off by mishandling.
6. Connect the EXRCPU (C) to an 8-36 V<sub>DC</sub> power supply using the power cable (1-EXR-PWR-PT-2). The system is now ready for use.



## 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.



## Restoring Default Settings

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

To regain administrator access:

1. Power down the EXRCPU.
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:

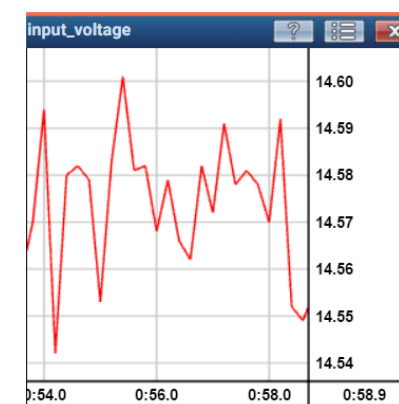
1. Power down the EXRCPU.
2. Press and hold the power switch.
3. When the LEDs flash, stay on and start flashing again, release the power switch.

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

## Live data displays

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

*Strip chart display.*



*Digital meter display.*

