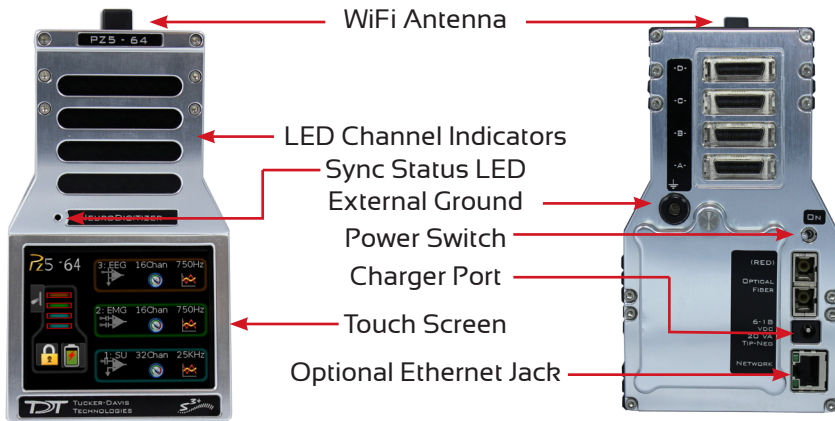


The PZ5 NeuroDigitizer

This fast fact sheet provides basic information for the PZ5 and related devices. See the System 3 Manual for more information. **Note:** The PZ5 is available with 32, 64, 96, or 128 channels.



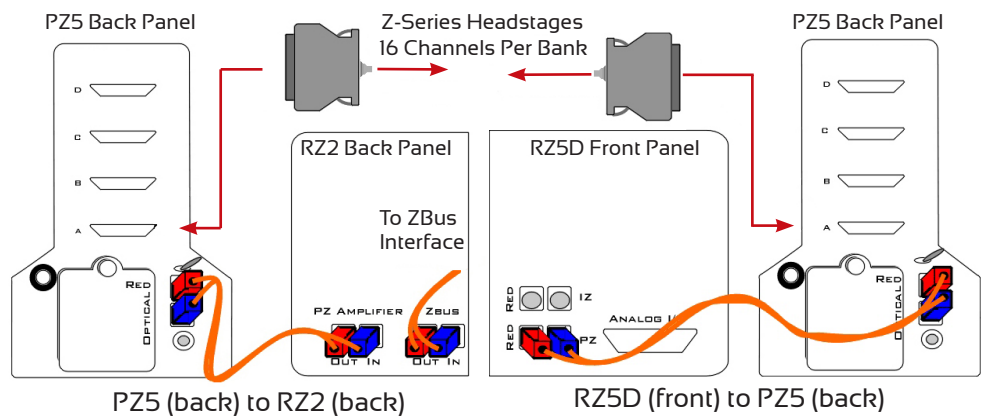
Software Configuration. Logical amplifiers can be configured on the Synapse, PZ5 options page. The table below lists default settings for each analog input amp type.

	Referencing	Coupling	Sample Rate
EMG	Diff*	AC	750 Hz
EEG	Shared	AC	750 Hz
LFP	Shared	AC	3 kHz
SU	Local	AC	25 kHz

*Diff = true differential

Digital inputs (if available) are configured after analog input banks. Default highpass filter is 0.1 Hz.

Hardware Setup. Use the provided 5-meter paired fiber optic cable to connect the PZ5 to the RZ processor, as shown below. The connectors are color coded and keyed to ensure proper connections.



Using the Front Panel Display. The front panel touch screen display [icons shown below] can be used for impedance testing, waveform preview, and on-the-fly device configuration.

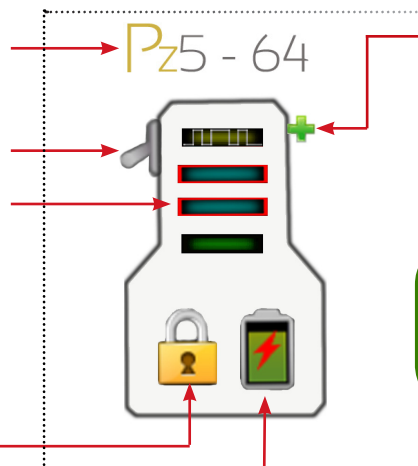
Open **System Setup** screen to access wifi and device information.

Toggle **LED indicators** off/on.

A red **outline** indicates a bank is configured, but no headstage is detected. Colors inside the frame indicate the logical amp type [gray= unconfigured].

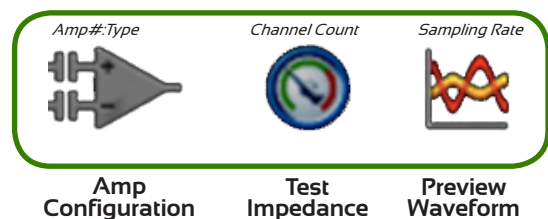
Lock/Unlock **configuration settings**.

Display **battery status** information.




Create a **new logical amplifier**. If all banks are configured, the green plus sign is not displayed.

Touch the icon in the **logical amp configuration area** [shown below] to display the desired screen for the corresponding logical amplifier.

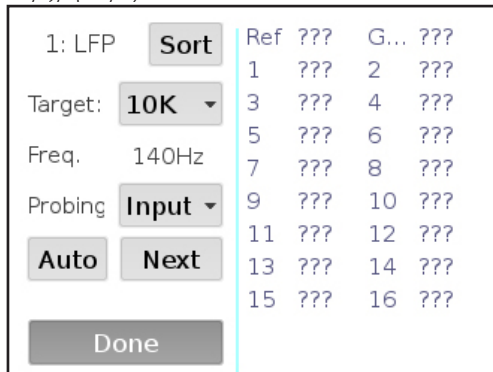


Caution: Touch screen logical amp configuration settings are overwritten at run time.

To test the impedance of your hardware set-up:

- Touch the  icon on the desired logical amplifier to display the Impedance Checking screen.

AmpType(Amp#)



To scroll the visible channels:

- Swipe vertically on the interface.

Settings include:

Target. Impedance values above the target will be red, values <75% below the target will be green and all other values will be yellow.

Frequency. Choose the probing frequency.

Probing. Select the pins to measure. Available options depend on the logical amp referencing mode (listed below).

Ref, GND, and AltRef values displayed on top row.

Differential: *Inp[+]* the positive input channels

Inp[-] the differential channels

Local: *Input* all input channels

Ref the reference impedance to ground

AltRef the alternative reference (pin 13)

Shared: *Input* all input channels

Ref the reference channel

Gnd the ground impedance

None: *Input* the input channels

Sort. Display channels with the largest variation from the target impedance at the top of the screen.

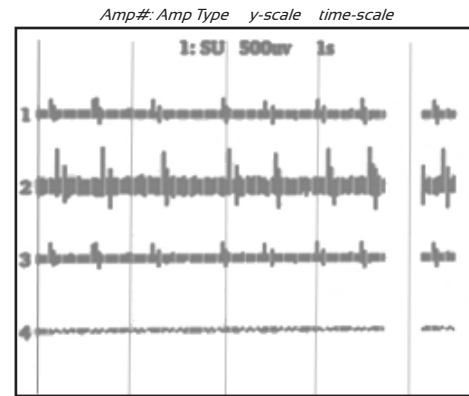
Auto. Cycle through probing options each second.

Next. Advance to the next probing option set.

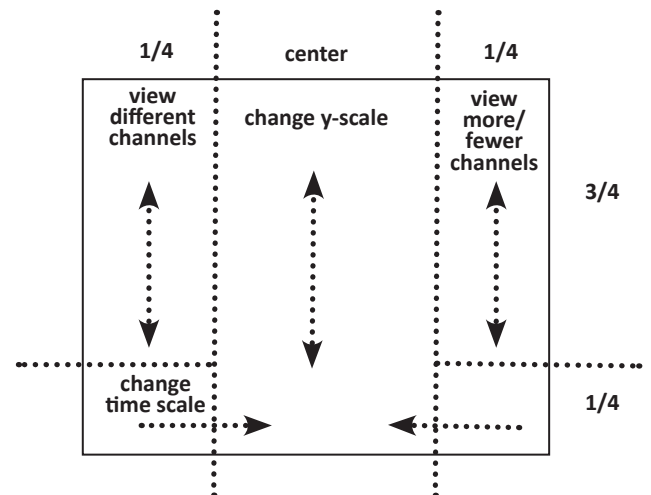
Waveform Preview. Incoming signals can be previewed on the front display. The plot label includes the logical amplifier number, amp type, and voltage and time scales.

To preview the data:

- Touch the  **Preview** icon on the desired logical amplifier.



- The screen view can be adjusted using touchscreen options.



To return to the Main Configuration screen:

- Swipe three fingers across the screen in any direction.

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