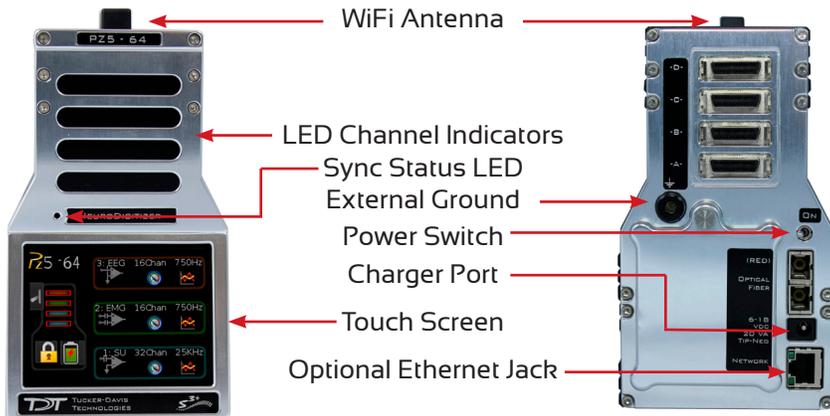


# Fast Facts

## 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.



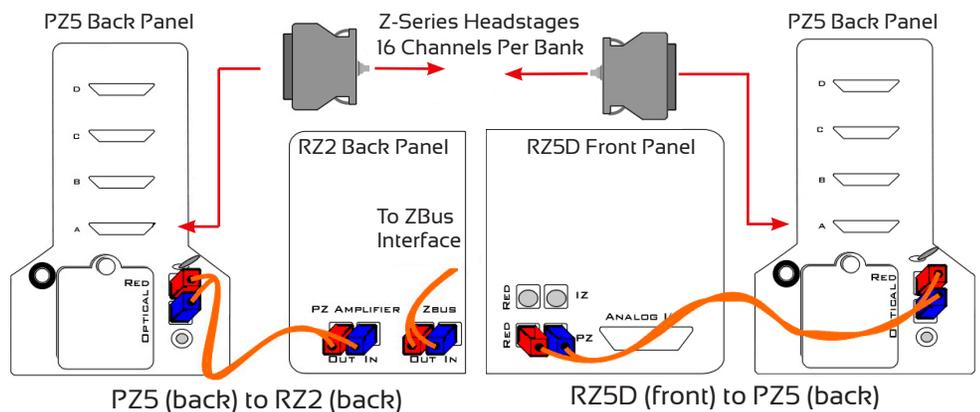
**Software Configuration.** Logical amplifiers can be configured on the Synapse, PZ5 options page. The table below lists default settings for each analog input amp type.

	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.

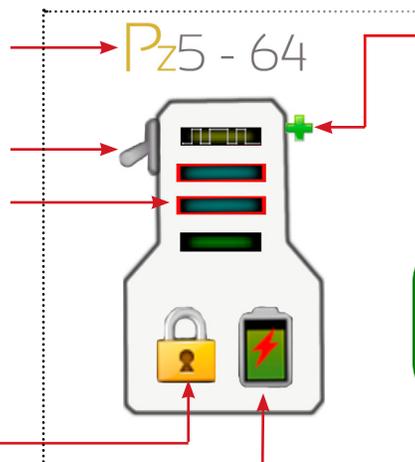
Open **System Setup** screen to access wifi and device information.

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].

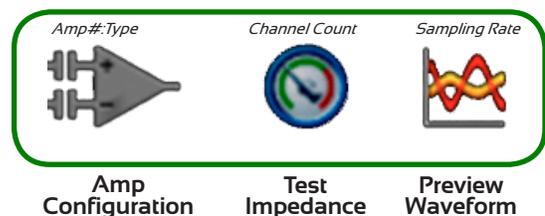
Lock/Unlock **configuration settings**.

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.

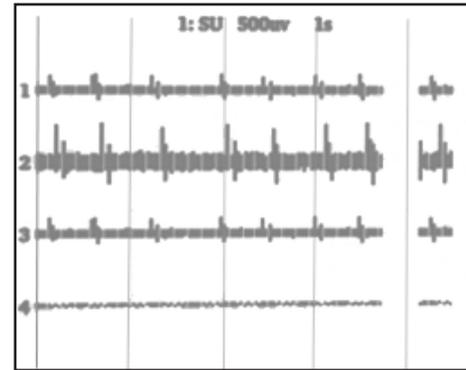
**Next.** Advance to the next probing option set.

**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.

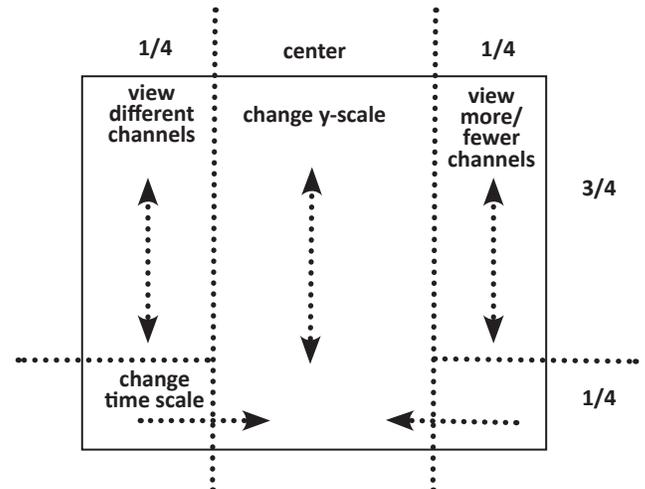
### To preview the data:

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

Amp#: Amp Type y-scale time-scale



- 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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