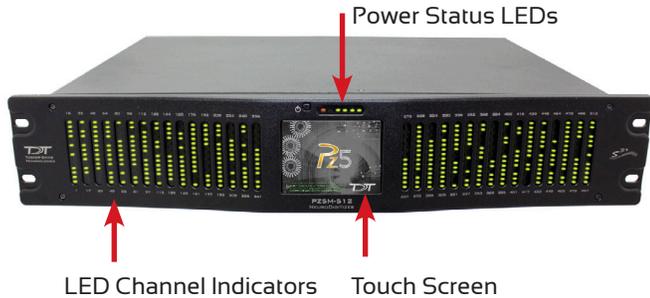


# Fast Facts

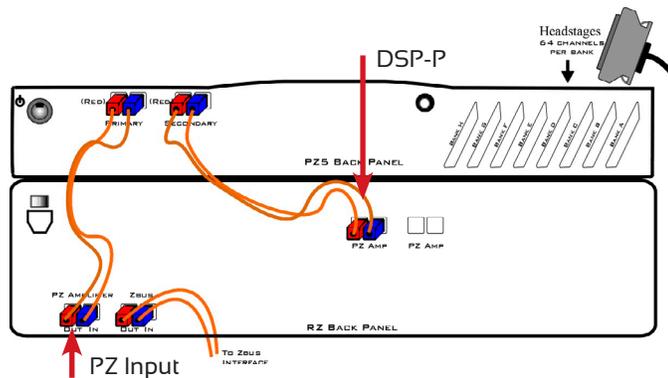
## The PZ5M NeuroDigitizer



This fast fact sheet provides basic information for the PZ5M. See the System 3 Manual for more information.



**Hardware Setup.** Use the provided paired fiber optic cable to connect the PZ5M to the RZ processor, as shown below. The connectors are color coded and keyed to ensure proper connections. The PZ5M-512 is shown below. If using the PZ5M-256, connect only to the primary connection on the RZ2 [located adjacent to the zBUS connection].



**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.

The table below lists default settings for each amp type.

	Referencing	Coupling	Sample Rate
EMG	Diff [true differential]	AC	750 Hz
EEG	Shared	AC	750 Hz
LFP	Shared	AC	3 kHz
SU	Local	AC	25 kHz

**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.

**Pz5 - 512** Open **System Setup** screen to access wifi and device information.



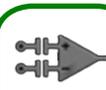
Lock/Unlock **configuration settings**.



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



Toggle **LED indicators** off/on.



Amp Configuration



Test Impedance



Preview Waveform

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 when using the PZ5M\_Control macro.



Banks are color coded to indicate current configuration.

### Configuration

- EMG
- EEG
- LFP
- SU
- Not configured

### Color Codes

- Green
- Brown
- Purple
- Teal
- Gray



**Warning.** A red outline indicates that the bank is configured as part of a logical amplifier but no headstage is currently detected on that bank.

**Power Status LEDs.** The row of small LEDs to the right of the battery power button report power type and level.

The leftmost LED indicates whether the device is:  
 Running on mains power                      green  
 Running on battery power                      red

The four LEDs on the right end of the row indicate the power level of the battery.

Power Level	# of LED's Lit
Fully charged	4
Not fully charged	3-2
Critically low, charge immediately	1

**Note:** The Power Switch on the back of the PZ5M must be in the ON position for the battery to charge.

**To test the impedance of your hardware set-up:**

- Touch the  icon on the desired logical amplifier to display the Impedance Checking screen. Swipe vertically on the interface to scroll.



**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.

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
Shared:	Input	all input channels
	Ref	the reference channel
	Gnd	the ground impedance
None:	Input	the input channels

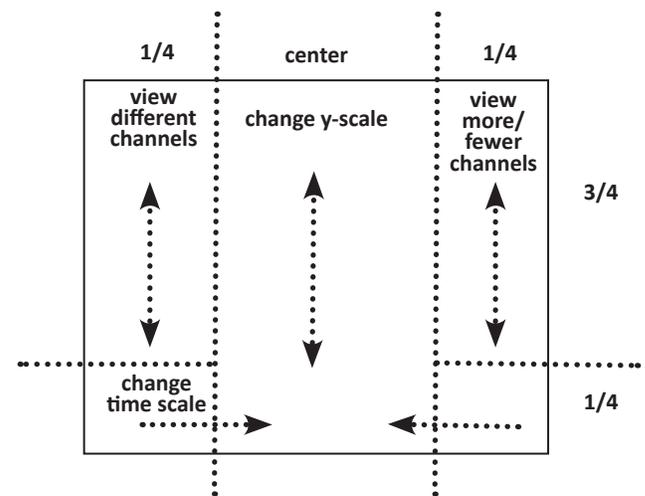
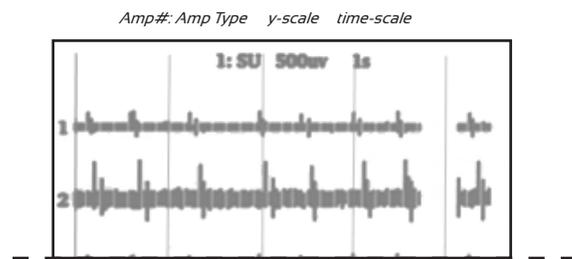
**Sort.** Display channels with the largest variation from the target impedance at the top of the screen.

**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. **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.