Fast Facts

IZ2/IZ2H Stimulator

WITH Synapse

The IZ2 Stimulator is available with 32(IZ2-32), 64(IZ2-64), or 128(IZ2-128) channels. Power for stimulation is supplied by 200 and 400 Wh battery life (LZ48-200 and LZ48-400) Li-Poly battery packs, both capable of producing the same output voltage/current characteristics. The number of channels needed for stimulation determines power requirements. The IZ2H is a high current range version of the IZ2 and is available with sixteen stimulus channels.

This fast facts sheet provides basic reference information for the IZ2/IZ2H Stimulator and related devices. See the System 3 Manual for more detailed information.

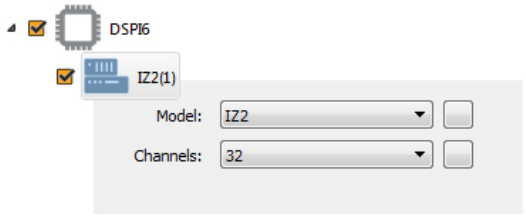
Output

Stimulus Output Voltage	+/- 12 V
IZ2 Stimulus Output Current	+/- 300 µA up to 50 kOhm load
IZ2H Stimulus Output Current	+/- 3 mA up to 5 kOhm load

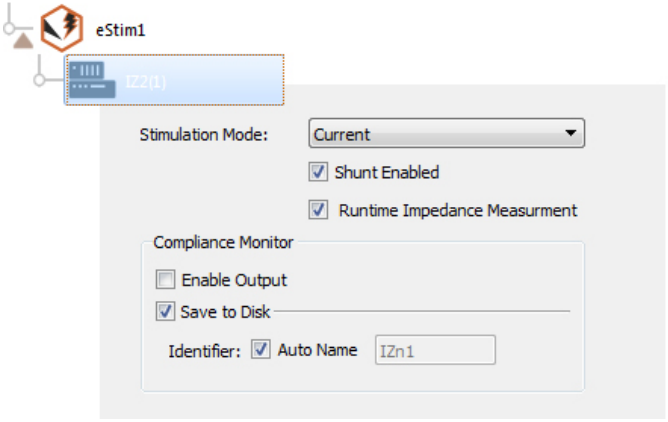
Power

IZ2-128	should only be used with the LZ48-400
IZ2-64	can be used with LZ48-200 or LZ48-400
IZ2-32	can be used with LZ48-200 or LZ48-400
IZ2H-16	should only be used with the LZ48-400

Synapse Rig Configuration. The first time the IZ2 is used, it must be configured in the rig. When the specialized DSPI card mounted in the RZ device is detected, an IZ2 will be added to the rig hardware tree. Click the check box to the left of the IZ2 icon to enable the device. In the options area, select the model and number of channels.



Synapse IZ2 Options. Click the IZ2 in the Processing Tree to display hardware option. Select Current or Voltage mode and any other options as needed.



Status Light

solid red	not properly connected to base station or cannot sync
solid green	connected to RZ and operating in current mode
solid green, slow red flash	connected to RZ and operating in voltage mode

Stim Lights

lit green	indicated channel in use as a stimulus output
lit red	indicated channel is clipping (beyond +/- 10 V)

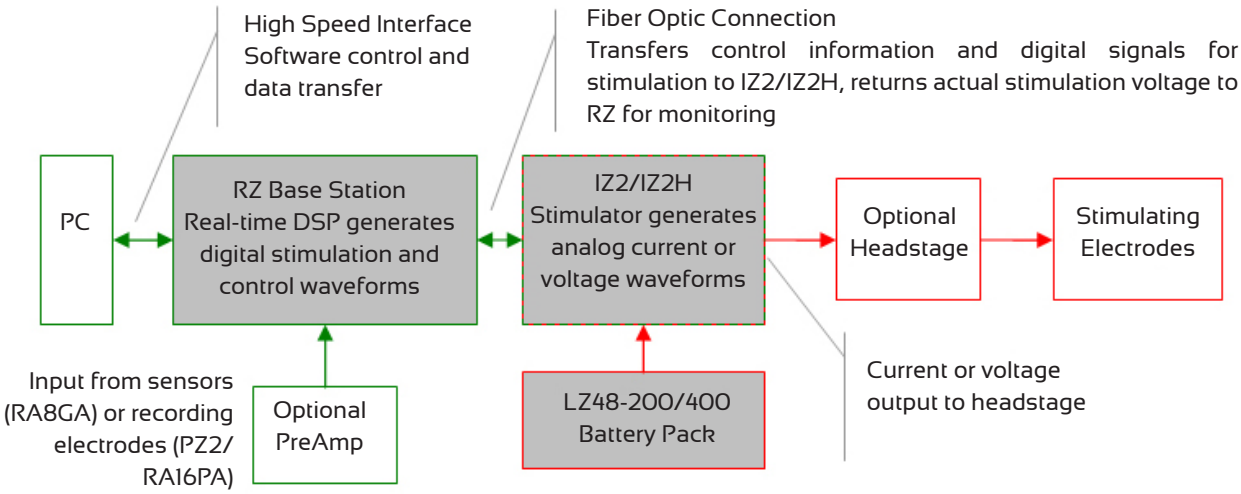
Battery Indicator Lights

VA	Positive Battery Pole
VB	Negative Battery Pole
VC	Logic Battery Level

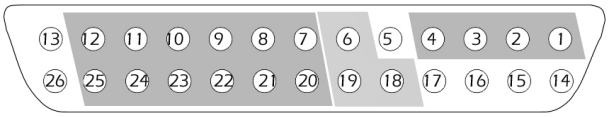
Battery Status Lights

8 green	fully charged
1 green, 7 unlit	low voltage
1 flashing red	low voltage - charge now!
8 green flashing	charging in progress

Functional Design of the MicroStimulator System



Mini-DB26 Connector Stim Out Pinouts



Note: Do not attempt to make any custom connections to pins 6, 18, or 19. These pins are intended for TDT use only. Pins 9-12, 22-25 not used on the IZ2H.

Pin	Channel	Pin	Channel
1	1	14	Digital Strobe
2	2	15	GND
3	3	16	GND
4	4	17	Digital Data
5	Digital Clock	18	HSD
6	HSD	19	HSD
7	5	20	6
8	7	21	8
9	9	22	10
10	11	23	12
11	13	24	14
12	15	25	16
13	+20 V	26	-20 V

System Set-up. To connect the stimulator system hardware:

1. Setup and configure the rest of your system.

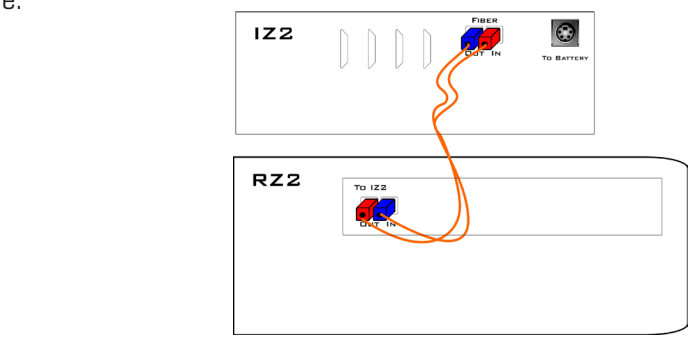
2. Connect the battery pack cable to the back panel of the stimulator via the connector labeled Battery, as shown in the diagram below.

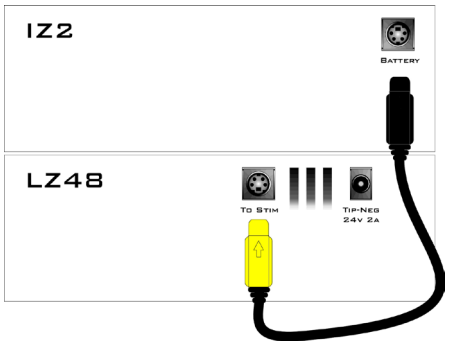
Warning!: Shorting the battery connection pins can cause damage to the device and injury to the user. Always use caution when handling or connecting the devices.

3. Connect the stimulator to the base station using the provided fiber optic cable.

4. Connect the fiber optic cable from the IZ2/IZ2H fiber optic port labeled Fiber to the fiber optic port labeled To IZ2 on the back side of the RZ. Be sure to note the difference in the two sides of the fiber optic cable connectors and ensure they are inserted with the correct side up.

5. Connect the DB26 output connectors on the stimulator to the stimulating electrodes.





Important! Make sure pins align with connector.

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