

# Splitters

## S-BOX - Amplifier Input Splitter

The S-BOX is a 32-channel passive signal splitter for use with the PZ3 Low Impedance Amplifier. The splitter provides a simple and effective means of routing low impedance biological signals to both a TDT acquisition system and a parallel recording system.

Four DB26 output connectors provide direct connection to a PZ3 amplifier and a single DB37 provides a parallel output connection. Bank letters as well as channel number ranges are labeled on all the DB26 connectors (i.e. Bank A Channels 1-8).

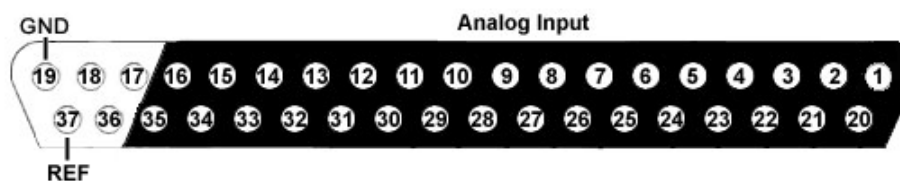


**Important!** The S-BOX is NOT FDA approved.

The splitter uses standard 1.5 mm safety connectors for input from electrodes. Front panel numbering of these inputs corresponds to TDT amplifier channels in Shared Differential mode.

**Important!** The S-BOX DOES NOT support Individual (True) Differential mode. Contact TDT if differential recording is required.

## DB37 Pinout



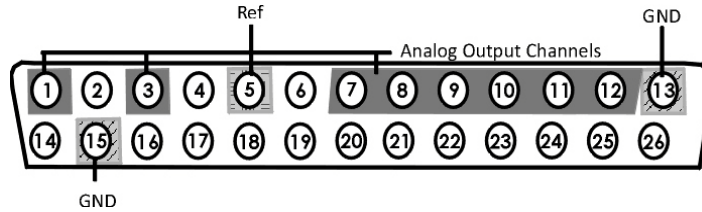
| Pin | Name | Description   | Pin | Name | Description  |
|-----|------|---|-----|------|--|
| 1   | A1   | Analog input channels<br>1,3,5,7,9,11,13,15,17,19<br>,21,23,25,27,29,31 | 20  | A2   | Analog input channels<br>2,4,6,8,10,12,14,16,18,<br>20,22,24,26,28,30,32 |
| 2   | A3   |   | 21  | A4   |  |
| 3   | A5   |   | 22  | A6   |  |
| 4   | A7   |   | 23  | A8   |  |
| 5   | A9   |   | 24  | A10  |  |
| 6   | A11  |   | 25  | A12  |  |
| 7   | A13  |   | 26  | A14  |  |
| 8   | A15  |   | 27  | A16  |  |
| 9   | A17  |   | 28  | A18  |  |
| 10  | A19  |   | 29  | A20  |  |
| 11  | A21  |   | 30  | A22  |  |
| 12  | A23  |   | 31  | A24  |  |
| 13  | A25  |   | 32  | A26  |  |
| 14  | A27  |   | 33  | A28  |  |
| 15  | A29  |   | 34  | A30  |  |
| 16  | A31  |   | 35  | A32  |  |
| 17  | NA   | Not Used  | 36  | NA   | Not Used   |
| 18  | NA   |   |     |      |  |
| 19  | GND  | Ground  | 37  | REF  | Reference  |

**Note:** No connections should be made to pins 17, 18, and 36.

## DB26 Pinout

PZ3 amplifiers have up to 16 26-pin headstage connectors on the back of the unit. The PZ3 channels are marked next to the respective connector on the amplifier. Match S-BOX DB26 Output connectors to the matching connectors on the PZ3.

### Pinout Diagram



**Note:** There are 8 channels per DB26 connector. Bank A is shown. Subsequent banks are indexed by an additional 8 channels.

| Pin | Name | Description            | Pin | Name | Description |
|-----|------|------------------------|-----|------|-------------|
| 1   | A1   | Analog Output Channel  | 14  | NA   | Not Used    |
| 2   | NA   | Not Used               | 15  | GND  | Ground      |
| 3   | A2   | Analog Output Channel  | 16  | NA   | Not Used    |
| 4   | NA   | Not Used               | 17  | NA   |             |
| 5   | Ref  | Shared Reference       | 18  | NA   |             |
| 6   | NA   | Not Used               | 19  | NA   |             |
| 7   | A3   | Analog Output Channels | 20  | NA   |             |
| 8   | A4   |                        | 21  | NA   |             |
| 9   | A5   |                        | 22  | NA   |             |
| 10  | A6   |                        | 23  | NA   |             |
| 11  | A7   |                        | 24  | NA   |             |
| 12  | A8   |                        | 25  | NA   |             |
| 13  | GND  | Ground                 | 26  | NA   |             |

## S-BOX\_PZ5 - Amplifier Input Splitter for the PZ5

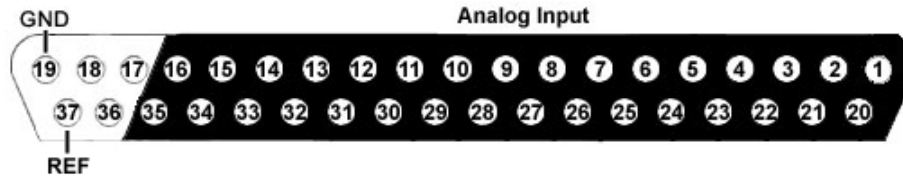
The S-BOX\_PZ5 is a 32-channel passive signal splitter for use with the PZ5 Amplifier. The splitter provides a simple and effective means of routing low impedance biological signals to both a TDT acquisition system and a parallel recording system.

Two DB26 connectors provide direct connection to a PZ5 amplifier and a single DB37 provides a parallel output connection. Bank letters as well as channel number ranges are labeled on all the DB26 connectors (i.e. Bank A Channels 1-16).

**Important!** The S-BOX\_PZ5 is NOT FDA approved and is intended for use with the PZ5 Amplifier.

The S-BOX\_PZ5 uses standard 1.5 mm safety connectors for input from electrodes. Front panel numbering of these inputs corresponds to TDT amplifier channels.

## DB37 Pinout



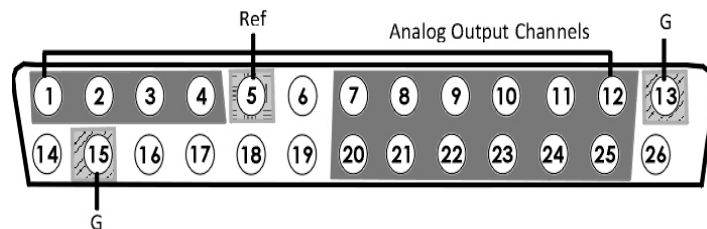
| Pin | Name | Description  | Pin | Name | Description  |
|-----|------|--|-----|------|--|
| 1   | A1   | Analog input channels<br>1,3,5,7,9,11,13,15,17,19,<br>,21,23,25,27,29,31 | 20  | A2   | Analog input channels<br>2,4,6,8,10,12,14,16,18,<br>20,22,24,26,28,30,32 |
| 2   | A3   |  | 21  | A4   |  |
| 3   | A5   |  | 22  | A6   |  |
| 4   | A7   |  | 23  | A8   |  |
| 5   | A9   |  | 24  | A10  |  |
| 6   | A11  |  | 25  | A12  |  |
| 7   | A13  |  | 26  | A14  |  |
| 8   | A15  |  | 27  | A16  |  |
| 9   | A17  |  | 28  | A18  |  |
| 10  | A19  |  | 29  | A20  |  |
| 11  | A21  |  | 30  | A22  |  |
| 12  | A23  |  | 31  | A24  |  |
| 13  | A25  |  | 32  | A26  |  |
| 14  | A27  |  | 33  | A28  |  |
| 15  | A29  |  | 34  | A30  |  |
| 16  | A31  |  | 35  | A32  |  |
| 17  | NA   | Not Used   | 36  | NA   | Not Used   |
| 18  | NA   |  | 37  | REF  |  |
| 19  | GND  | Ground   |     |      |  |

**Note:** No connections should be made to pins 17, 18, and 36.

## DB26 Pinout

PZ5 NeuroDigitizers have up to eight 26-pin headstage connectors on the back of the unit. The connectors are labeled alphabetically from bottom to top. The PZ5 can be operated in four different modes. The pinout reflects numbering when using None or Shared Reference Mode. Contact TDT if differential recording is required.

### Local, None or Shared Reference Mode



**Note:** There are 16 channels per DB26 connector. Bank A is shown. Channels in Bank B are incremented by an additional 16 channels.

| Pin | Name | Description            | Pin | Name | Description            |
|-----|------|------------------------|-----|------|------------------------|
| 1   | A1   | Analog Output Channels | 14  | NA   | Not Used               |
| 2   | A2   |                        | 15  | GND  | Ground                 |
| 3   | A3   |                        | 16  | NA   | Not Used               |
| 4   | A4   |                        | 17  | NA   |                        |
| 5   | Ref  | Reference              | 18  | NA   |                        |
| 6   | NA   | Not Used               | 19  | NA   |                        |
| 7   | A5   | Analog Output Channels | 20  | A6   | Analog Output Channels |
| 8   | A7   |                        | 21  | A8   |                        |
| 9   | A9   |                        | 22  | A10  |                        |
| 10  | A11  |                        | 23  | A12  |                        |
| 11  | A13  |                        | 24  | A14  |                        |
| 12  | A15  |                        | 25  | A16  |                        |
| 13  | GND  | Ground                 | 26  | NA   | Not Used               |

