

Getting Started with the Pioneer DVL

Step 1

Verify all parts are present

The standard DVL includes:

- Pioneer DVL with Dummy Plugs
- Power/Comm Cable and Pigtail cable
- Shipping case
- Spare Parts Kit
- Software and Documentation download instructions



Step 2

Download the Software and Documentation

See Deployment Guide for details:

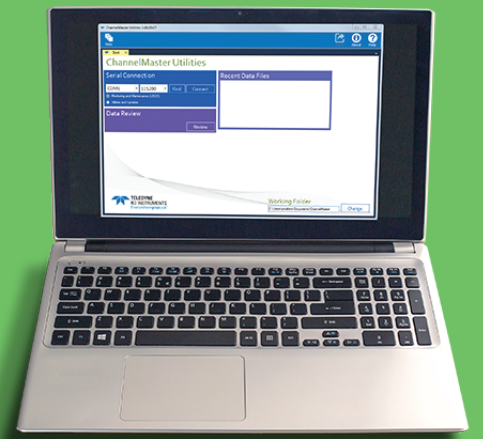
- Install TRDI Toolz software
- Install NavUI software
- Install other software as needed
- Download Pioneer manuals



Step 3

Communication and Power Setup

See the reverse side of this guide for detailed instructions.



Step 4

Read the Integration Guide



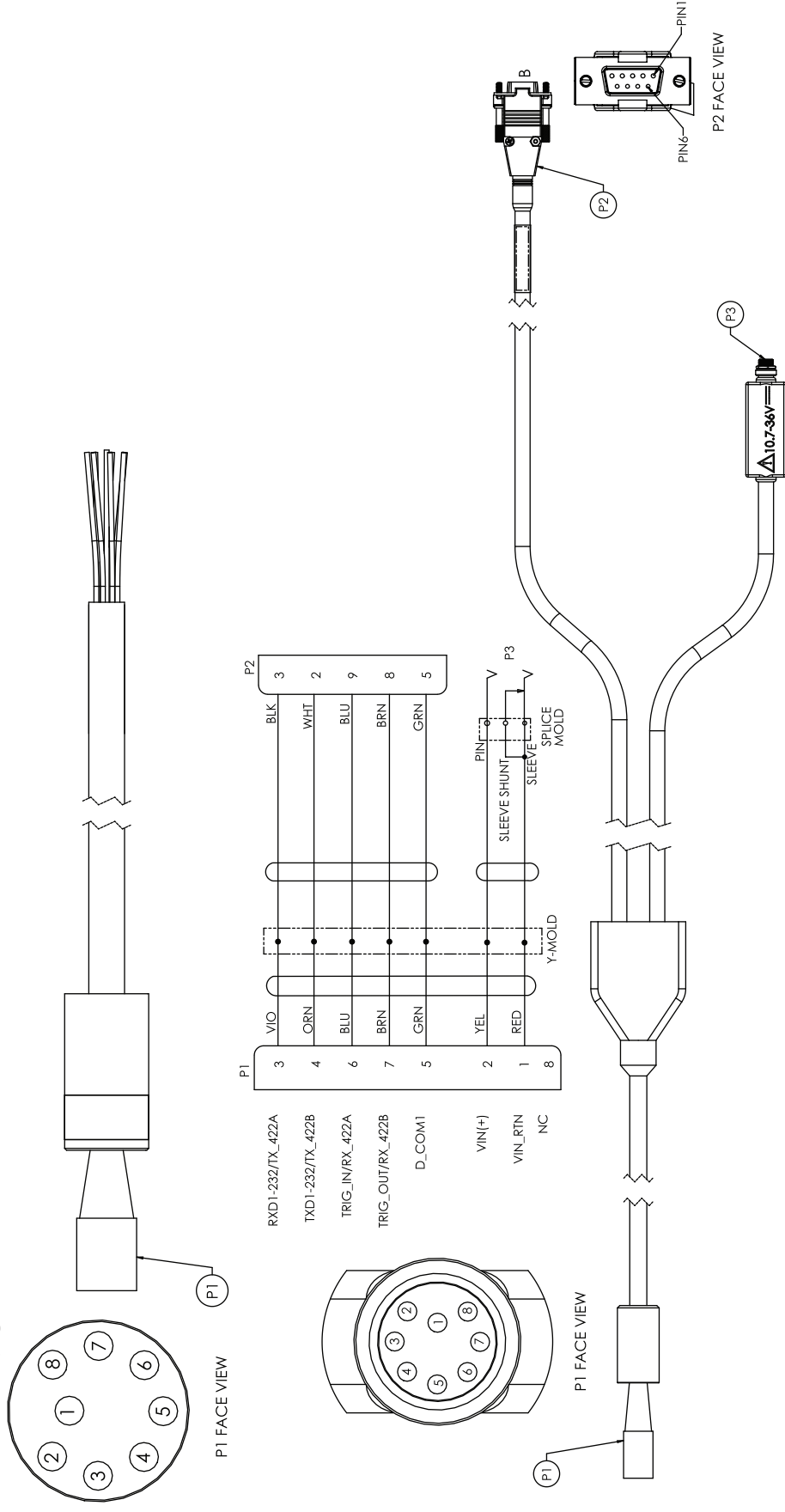
PRODUCT FEATURES:

- Bottom-tracking capability for deep water operations: 1000-4500 meter depth rating for tracking ranges 100-275 m
- Optional XRT (Extended Range Tracking) delivers up to a 60% increase in bottom tracking range
- Compact DVLs that can be packaged into small portable UUVs of 7.5 inches (<19 cm) in diameter
- Flexible triggering with both trigger in and trigger out
- Multiple communications channels, allowing for optimum connectivity with external sensors
- Real-time current profiling option provides additional critical data parameters from a single instrument
- Self-contained or remote-head options available
- Advanced AHRS IMU for accurate vehicle attitude correction in static and dynamic environments
- Leak detection and monitoring for peace of mind in the most critically demanding deep missions
- Transducer and system health monitoring for real-time health monitoring of your critical navigation asset
- Time of validity output for highly accurate coupling with an Inertial Navigation System (INS), further improving the resulting DVL-aided-INS position accuracy

Step 3 Communication and Power Setup - Detailed Instructions

Step 3 A Wiring the Standard Power/Comm Pigtail Cable

Wire the pigtail cable or use the Power/Comm Test Cable.



Step 3 B Connecting the Power/Comm Cable

1. Place the Pioneer on its transducer face on a soft surface.
2. Remove the Power/Comm protective cap and lubricate the connector.
3. Push the cable straight onto the Power/COMM connector ensuring the pins are properly aligned. While keeping a slight inward pressure on the cable connector and ensuring that the connector is straight, thread the locking sleeve onto the receptacle to complete the connection.
4. Attach the Power/Comm cable to the computer's serial communication port. Use an RS-422 to RS-232 adapter if the DVL is configured with port 1 as RS-422.
5. Connect the power adapter cable to the DVL/Power/Comm cable power connector by pushing it all the way in until it "clicks". Connect +10.7 to 36 VDC power. The power supply should be able to source at least 4 Amps.
6. Place the Pioneer system in water (at least a few inches to cover the transducer face).
7. Establish communications with the Pioneer.

10.7 to 36 VDC
(32 VDC typical)
4 AMP

Power Adapter Cable
73B-6046-00

USB to Serial
ADAPTER

* RS-232 or use
RS-422 to RS-232 Adapter

To Serial Port
(COM1 or COM2)

* RS-232 or use
RS-422 to RS-232 Adapter

DVL/Power/Comm Cable
73B-3004-005

Pioneer DVL

Bucket of Water

WITH OPTIONAL 75BK6143-00 KIT, CABLE, TEST, WITH USB ADAPTER, PIONEER

Step 3 C Setting Up the Communications

To establish communications with the Pioneer:

1. Connect and power the system as shown in Steps 3A and 3B.
2. Start the *TRDI Toolz* software (installed in Step 2).
3. Select **New Serial Connection**.
4. Enter the Pioneer's communication settings.

For **Serial** comms select the COM Port the cable connected to and set the Baud Rate to 115200.



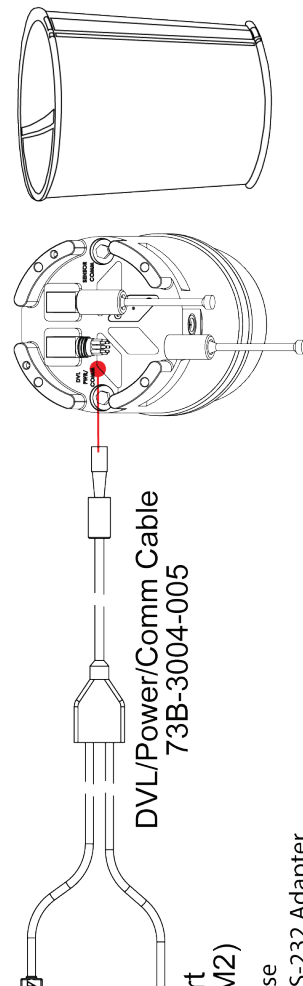
5. Click the **Connect** button. Once connected, the button will change to **Disconnect**.
6. Click inside the terminal window and then click the **Break** (⚡) button located at the bottom left of the terminal window. The wakeup banner below will be displayed.

Pioneer DVL
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Firmware Version: 57.xx



Refer to the Integration Guide for further information.

Remove the Dummy plug and lubricate the connector by placing a light amount of silicone lubricant on the female cable connector mating surfaces (rubber portion only).
Silicone lubricant is included in the Spare Parts kit.



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