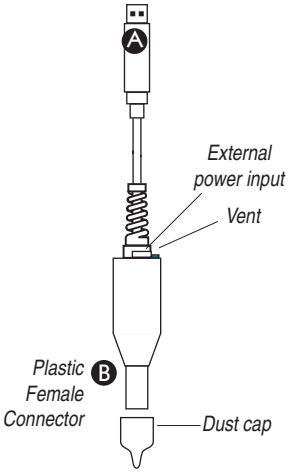
In-Situ Inc.

*Level* ***TROLL®***
*Aqua* ***TROLL®***
*MP* ***TROLL®*** *9500*

***Information Sheet***

**Catalog No. 0052510**

# USB TROLL® COM
## DIRECT CONNECT




### APPLICATION

Communication interface between a Level TROLL, Aqua TROLL, or MP TROLL 9500 and a desktop/laptop computer running Microsoft® Windows® 2000 or higher. Includes external power jack and vent with replaceable membrane. Connects directly to the instrument for indoor use while programming/downloading the device.

### PHYSICAL DESCRIPTION

| | |
|---|---|
| Materials | Delrin®, nylon, Viton®, polyurethane |
| Environmental rating | Not designed for submersion |
| Dimensions | 3.2 cm (1.25 in) O.D.,16.3 cm (6.4 in) long , including strain relief |
| Input | |
| Level TROLL, Aqua TROLL: | RS485 Modbus |
| MP TROLL 9500: | RS485 |
| Output | USB Type A |
| DC power jack | 2.5 mm |
| Compatible DC power plug | 5.5 mm O.D., 2.1 mm I.D., center positive |
| External power input | |
| Level TROLL, Aqua TROLL: | 8 to 36 VDC |
| MP TROLL 9500: | 16 VDC Maximum |
| Cable | Black polyurethane, 91 cm (3 ft) long |
| Operating temperature | -20°C to 50°C (-4°F to 122°F) |
| Storage temperature | -20°C to 80°C (-4°F to 176°F) |

### A CONNECTIONS

B Connects to a USB port

Female connector mates directly with the instrument back end

### INSTALLATION—HARDWARE

Attach via snap-on connection to the TROLL back end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## INSTALLATION—USB SOFTWARE

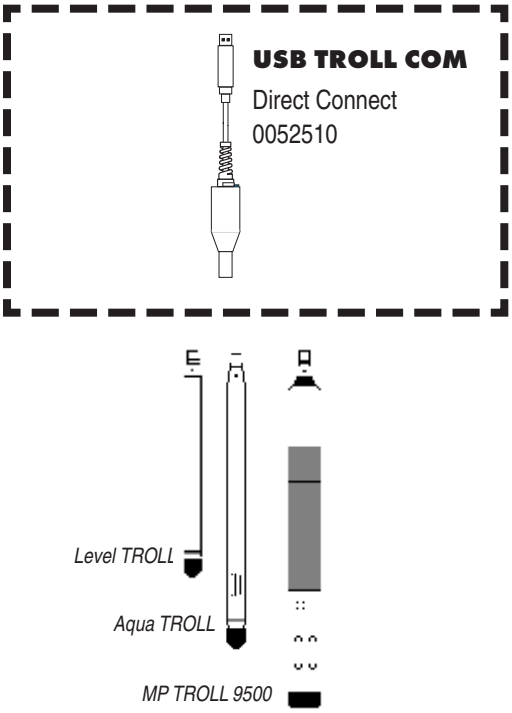
1. Install the latest Win-Situ® software from the In-Situ CD or website to a desktop/laptop computer running Microsoft Windows 2000 or higher.
   - Win-Situ 5, version 5.6 or higher for a Level TROLL or Aqua TROLL,
   - Win-Situ 4, version 4.57.4 or higher for a Multi-Parameter TROLL 9500

   When asked, select the option "Install USB TROLL Com Drivers." Two drivers will be loaded to your hard drive, one for the USB TROLL Com, one for the USB TROLL Com serial port.

   *TIP: Be sure to install USB TROLL Com drivers when installing Win-Situ.*

2. After installation, plug the USB TROLL Com into a USB port on your computer.
   - Windows 2000, Windows Vista: When new hardware is detected, the drivers are installed automatically.
   - Windows XP: Follow the instructions in the Found New Hardware Wizard. Select the option "Install software automatically."
3. After installation, check as follows to find which COM port the USB drivers are using:
   - Windows 2000, Windows XP: Control Panel > System > Hardware tab > Device Manager > Ports. Click the plus sign to display the ports.
   - Windows Vista: Control Panel > System > Device Manager (Administrator permission required) > Ports. Click the plus sign to display the ports.

   *Remember the port number. You will need it when connecting to the instrument in Win-Situ.*




***CAUTION: DO NOT EXCEED 16V EXTERNAL POWER FOR AN MP TROLL 9500.*** *Use a converter that supplies 16V or less.*

## GUIDELINES AND PRECAUTIONS

- **DO NOT SUBMERGE.**
- Operating system requirements for Win-Situ and USB TROLL Com drivers: Windows 2000 Professional SP4 or higher, Windows XP Professional SP2 or higher, or Windows Vista SP1 or higher.

**1 800 446 7488**

**(toll-free, US and Canada) or 970 498 1500** **www.in-situ.com**

In-Situ Inc.

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