

IOP 017B.1
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Replaces IOP 017B.0
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and

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Ludington Biological Station
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and

Fisheries and Oceans Canada
Sea Lamprey Control Centre
1219 Queen Street East
Sault Ste. Marie, Ontario P6A 2E5
Canada

INSTRUMENT OPERATING PROCEDURE

INSTRUMENT:

Stream Flow Computer

MODEL:

AquaCalc Pro Plus

MANUFACTURER:

JBS Instruments

PRECAUTIONS:

Computer could be set for wrong type meter (i.e.: Pygmy or Price AA).
Computer could be set to use wrong rating table.
Computer is water proof for rain and humidity, but will not survive being submerged.
If dropped in water, open back cover and dry with a hair dryer immediately.

POTENTIAL INTERFERENCES

Dirty or corroded phone plug on gauging rod. Clean with steel wool.
If battery is low, **low battery** will appear on the display. Open battery compartment on back of computer and replace batteries. The unit requires four AA batteries.

SAFETY

No special safety concerns

PROCEDURES:

- I. Press the ON/OFF key to turn the AquaCalc on and to turn it off hold the key down.
- II. Once turned on the Main Menu screen appears.
- III. A new section can be created by one of two ways:
 - A. Select **New Section soft key** from the Main Menu and go directly to the Measure screen. A new section will be created that will have a Section identifier consisting of the date and time. Once in this screen measuring can start or the new section can be setup by pressing the **Setup** key and selecting **1) Section Setup** by pressing the **1** key.
 - B. Select **2) Sections** from Main Menu to enter Section Menu and create a new section by pressing a number key corresponding to an on screen number with a blank line next to it then pressing the **New** key. After setting up the section the Measure screen will come on with the first vertical defined as Water Edge.
 - C. Once in **Section Setup** ensure that the correct meter is selected. To change the meter press **3** to enter the list of meters and select the appropriate meter from the list by pressing the corresponding number key.
- IV. Once the section has been setup press the **Enter** key to return to the Measure screen and the display will now show **Water Edge** in the center of the screen.
- V. Connect wading rod and current meter up to the AquaCalc using provided cable.
- VI. Enter tag line distance read from tape measure stretched across the stream for **Water Edge** by pressing the **Distance/3** key and use the numeric key pad then press **Enter** to finish.
- VII. Instream move the required distance over to perform a measurement and press the **New Vertical** key. Enter the distance as requested followed by **Enter**.
- VIII. Press **Stream Depth/6** key and enter stream depth, pressing **Enter** to complete the entry.
- IX. Press the **Measure** key to begin measuring. Note that the AquaCalc is programmed to measure velocity for 40 seconds but if velocities are inconsistent it will reset and restart the measurement.
- X. When all of the measurements are complete in the Vertical press the **New Vertical** key and enter the distance as read from the tape measure then enter the stream depth for the new vertical.
- XI. Continue across stream until finished. Once section is complete mark the last vertical as the edge of water by pressing the **Edge/0** key.
- XII. Press **Review Totals** to review the section summary.

MAINTENANCE:

- Replace battery when needed.
- Wipe with dry soft cloth before storing.

REFERENCES:

AquaCalc Pro Plus Stream Flow Computer Instruction Manual

This procedure has been reviewed and approved by the undersigned representatives of the U.S. Fish and Wildlife Service and Fisheries and Oceans Canada.

REVIEWED/APPROVED _____ DATE _____
Field Supervisor (U.S.)

REVIEWED/APPROVED Mike Shivers DATE 05 MAR 2020
Program Manager (Canada)