

## Step 1: Set Up Instrument

- Screw probe securely on to bottom of wading rod and tighten gently with wrench
- Connect communication connector to bottom of yellow head unit
- Connect plastic holder to wading rod and screw into back of yellow head unit



## Step 2: Prepare Transect Site

### 1. Select transect site

#### The ideal measurement site will have:

- Uniform flow
- A straight channel with uniform cross section (similar slope and depth across section)
- Stable, defined banks (no undercutting or vegetation)

#### Avoid sites with:

- Turbulent flow
- Deep pools
- Bends or steep slopes immediately upstream
- Undercut/undefined banks
- Negative flow/back eddies

### 2. Set out measuring tape – the tape should be perpendicular to streamflow

### 3. Determine wetted width of cross section

- Check wetted edge location on each side of tape and subtract smallest from largest

### 4. Divide the wetted width by 20 to determine size of panels

- E.g., if your stream is 10.0m wide, your panels will need to be at least 0.50m (50cm) wide to ensure you have 20 panels across the transect
- Goal is to have a minimum of 20 panels (provided stream is wide enough)
- The minimum size a panel can be is 10cm wide – if your stream is less than ~3m wide, all of your panels will be only 10cm wide

### **Step 3: Collect Measurement Data**

1. Select Measurement > Discharge
2. Select your site from the menu or select “(default)” and enter site details
3. Perform Beam Check – follow prompts on screen
4. Select “Add Station” and enter starting bank details
5. Continue adding “Stations” (aka panels) at selected intervals

### **Step 4: Complete Measurement**

1. Ensure all panels are entered correctly
  - Check spacing (minimum 10 cm wide), depth, # of panels.
  - If possible, aim for no red bars (panels w/ >10% discharge [aka ‘Q’])
1. Select Menu > Complete Measurement
2. Check the final Summary screen and note the discharge value
3. Select Complete to save your measurement

### **Helpful How-Tos:**

#### **1. How to edit a panel (a.k.a. 'station'):**

- Hover over panel bar and select using enter key (middle top of keypad)
- Select Edit Station – note: if you edit the depth you will likely need to re-do the measurement (follow #3 below)
- When edits complete, select Measure > Done/Review

#### **2. How to delete a panel:**

- Hover over panel bar and press the delete key (bottom right ‘X’ on keypad) > select Delete

#### **3. How to delete and re-do a velocity measurement:**

- Hover over station bar and select using enter key (middle top of keypad)
- Select Edit Station > Measure
- Select Menu > Discard 0.6 > Delete
- Use the enter key to reselect the 0.6 measurement for that station