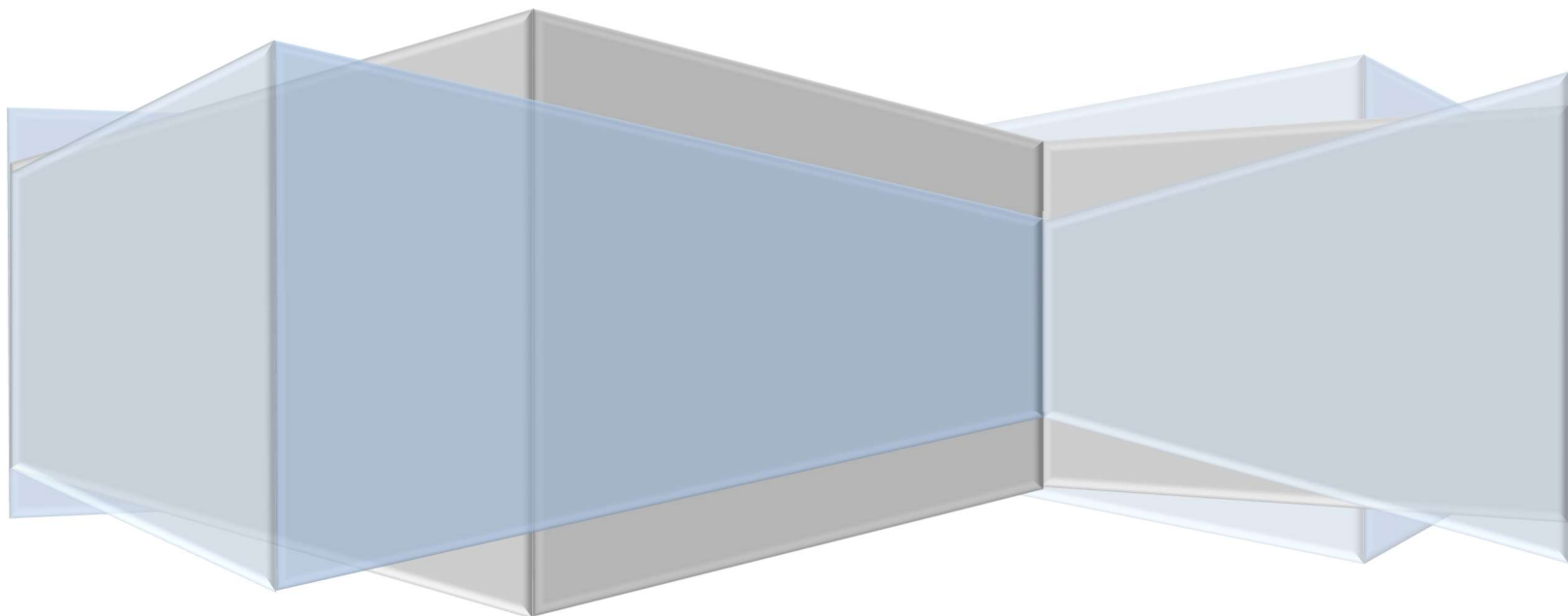# HydraData Instructions for Use

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not in-stalled and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Increase the separation between the equipment and receiver.

—Consult the dealer or an experienced radio/ TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This Class A/B* digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A/B est conforme à la norme NMB-003 du Canada. (*Select the correct class.)

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The HydraData system consists of 2 items. The first is the HydraData device that will monitor fluid intake. The unit can be used in conjunction with a back pack water supply or, with the included straw with a simple cup. In either case, installation in the back pack or mounting of the straw valve must be done to insure flow of water is in the proper direction. The image below shows the orientation required, where the inlet end of the device is connected to the water supply side and the outlet end is connected to user end, either the straw or the tubing from the back pack. The HydraData device has 2 elements, the transmitter and the disposable fluid path. To assemble the disposable fluid path, slide it into a receiver on the back of the transmitter being careful to fully seat the disposable fluid path into the receiving slot.

HydraData transmitter

Outlet End

Inlet End

Disposable fluid path device

The second element of the system is the Hydradata application. This application is loaded onto an approved mobile device or tablet. This device must be running android version 4.4.2 or later software and be Bluetooth LE compatible (contact ATP if there are any questions of capability of your device).
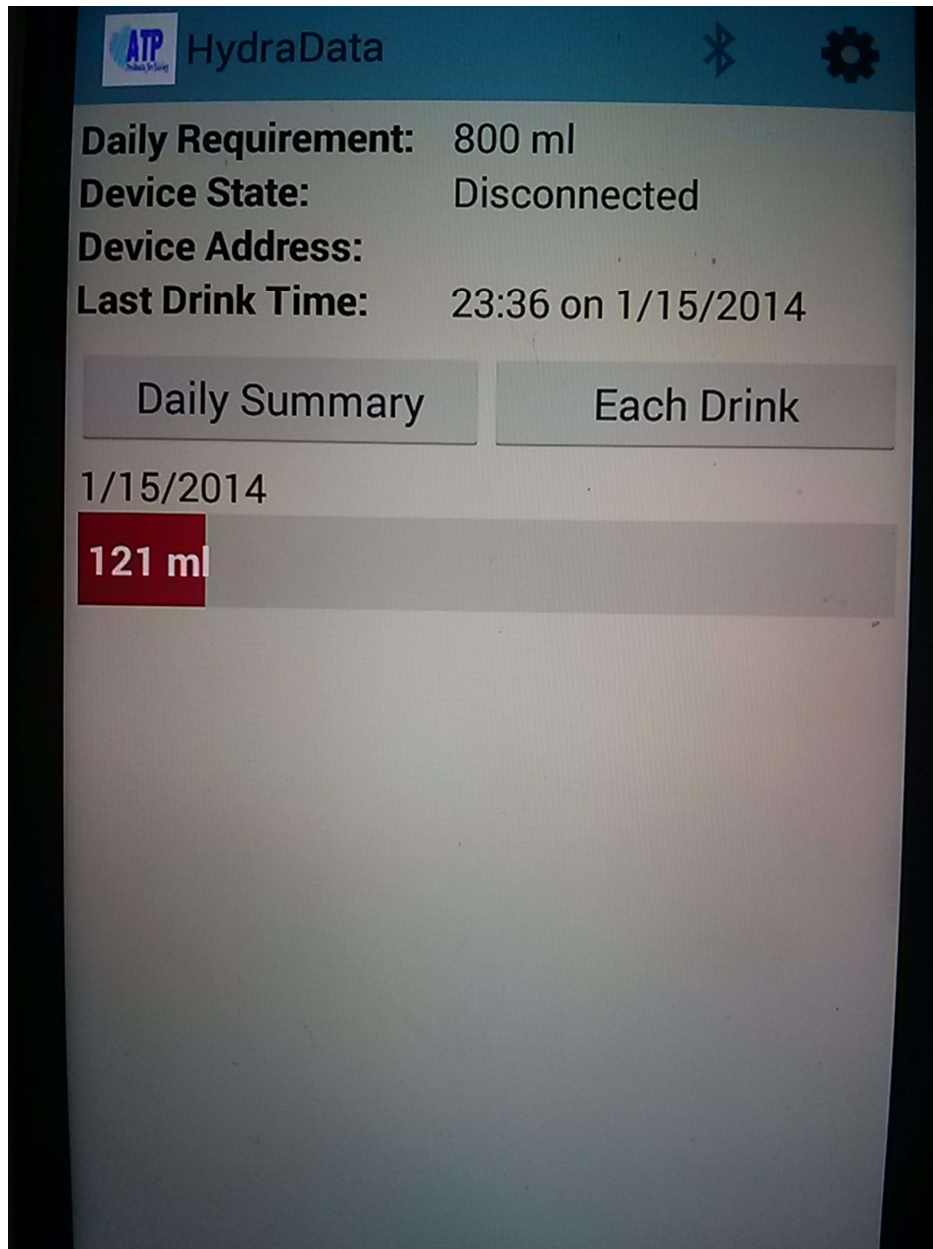
To startup the system, do the following:

Image of main screen

1. With mobile device powered up, Press Hydradata icon on home screen
    a. Application main screen is displayed
    b. Device state should say "Disconnected"
    c. Device address is blank
2. If this is first use, or settings changes are required, press Settings button in upper right corner to go to settings screen. Otherwise go to step 7.
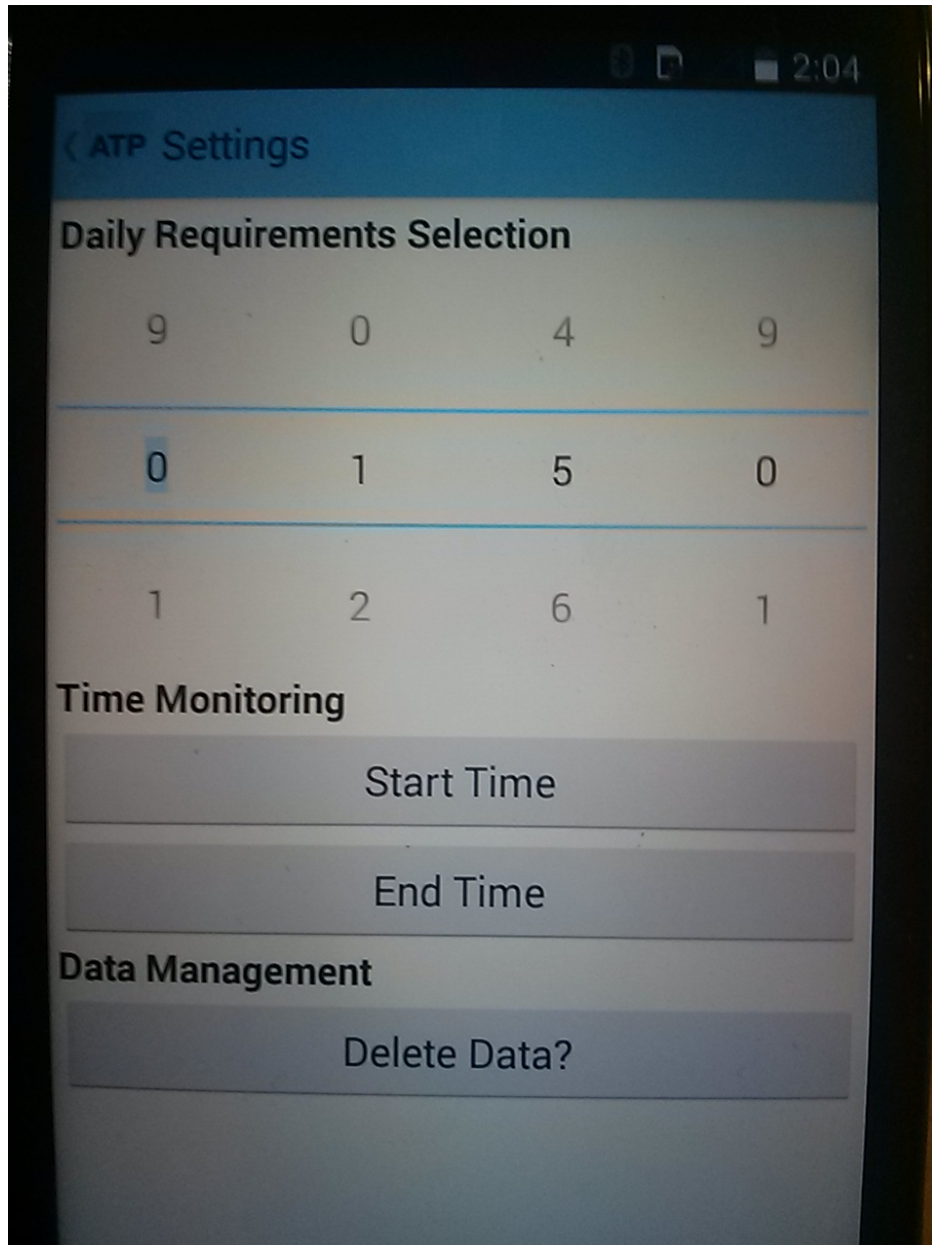
Image of the settings screen

3. Use scroll wheels to set Daily Requirements
4. Press Start Time button
    a. Use scroll wheels to select start time for monitoring
    b. Press Done button
5. Press End Time button
    a. Use scroll wheels to select end time for monitoring
    b. Press Done button
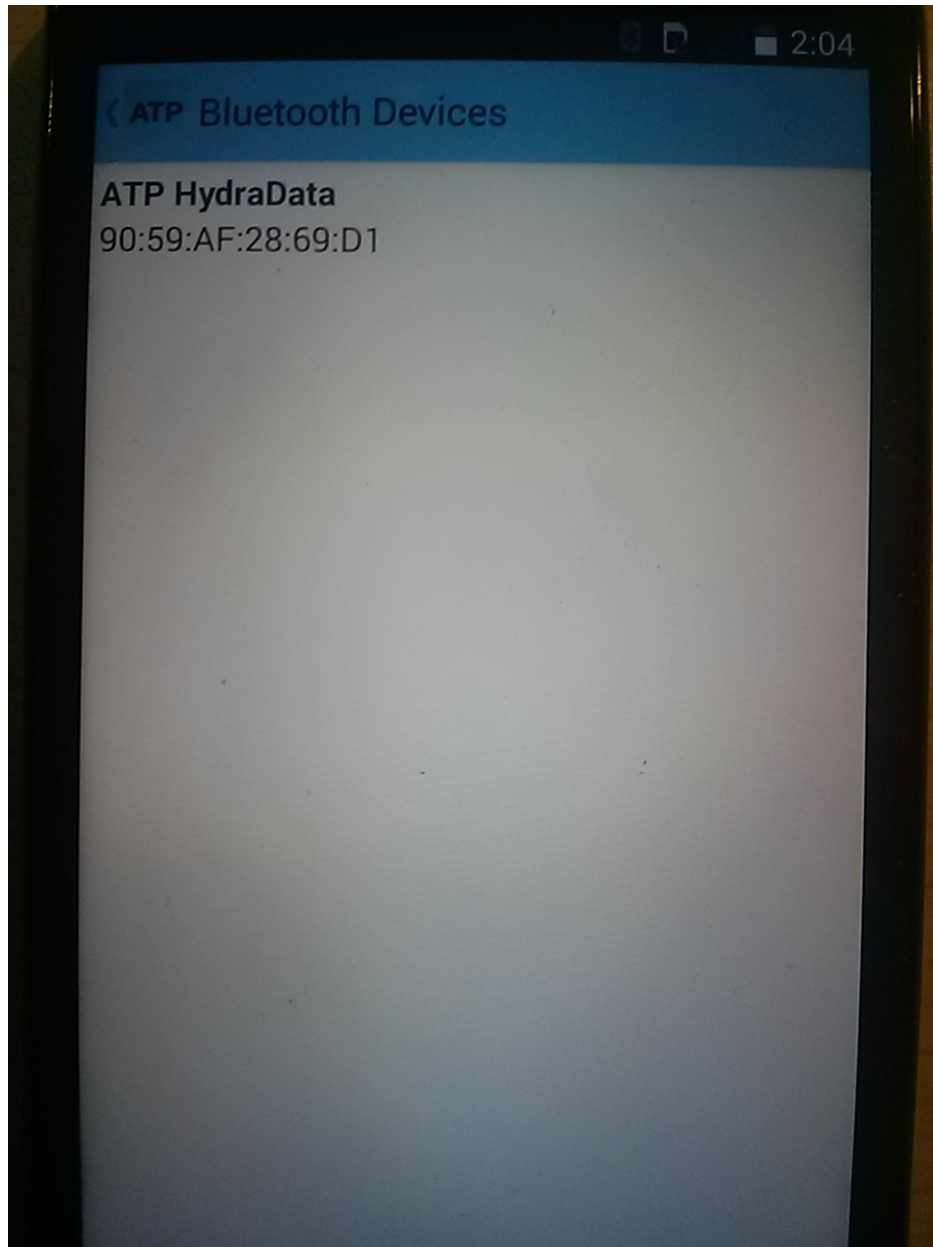6. Press Settings in upper left corner to return to main screen

Image of device screen

7. Press Bluetooth icon on the main screen to go to device selection screen
8. Shake the Hydradata device twice to awake the device
    a. The device ID will appear on screen (NOTE: the device ID can be found on the back of the electronic module)
    b. Press Device ID on screen to pair device to application
9. On main screen, Bluetooth Device Connected will momentarily appear as device is connected
10. When connection is complete, Device State will say "Connected" and the device ID will be displayed.

The application can display drink data either as a daily sum or as individual drinks. Pressing the appropriate button on the main screen changes the display. In daily summary mode, a bar graph is shown for each day. For the current day, intake is tracked against a linear daily requirement. For instance if 800mL is the daily requirement, and 8 hours is the monitoring time interval (9am to 5pm for example) we divide the 800mL evenly over the 8 hours. For instance, at the end of the first hour, 100mL should been consumed.   The bar will change color based on the percentage of this linear requirement. The color coding is as follows:

- RED - Less than 80% of requirement
- YELLOW - Between 80 and 90% of requirement
- GREEN - Between 90 and 110% of requirement
- BLUE – Over 110% of requirement

Is should be noted that in the current configuration of the app, it does not differentiate whether the drink event occurred within the time window or not. So for instance, if a drink is taken before the start time, it still counts against the daily requirement. In this case, the bar graph will have no color until the start time.

During normal operation, the app will go out and query the device every 2 minutes to determine if there are new drink records to upload. A text box will appear along the bottom of the screen that says "Checking for Drink Data". Following that, if a drink record is available, it will say "Uploading Drink Data". If not, it will say "No new Drink Data". If the app is not running, or the device is disconnected, drink data is stored in the device and held for future uploading. Once the connection is re-established, all non-uploaded drink records are uploaded.

NOTE: WHILE IN NORMAL OPERATION, DUE TO THE QUEARY EVERY 2 MINUTES, THE MOBILE DEVICE WILL NOT GO INTO SLEEP MODE. FOR LONG TERM USE, THIS MAY NOT BE DESIRED DUE TO BATTERY LIFE OF THE MOBLIE DEVICE. TO PUT THE MOBLIE DEVICE INTO SLEEP MODE, FIRST DISCONNECT THE DEVICES BY PRESSING THE BLUE TOOTH ICON AND THEN PRESS THE POWER BUTTON OF THE MOBILE DEVICE.   IF THIS IS NOT DONE, AND THE MOBILDE DEVICE IS PUT DIRECTLY INTO SLEEP MODE, THERE IS A POSSIBILITY THAT THE APPLICATION WILL SHOW THE DEVICEs ARE CONNECTED WHEN THEY TRULY ISN'T. THIS IS EVIDENCED BY THE FACT THAT WHILE THE DEVICE STATE SAYS CONNECTED, IT IS NOT QUERYING THE DEVICE EVERY 2 MINUTES. IF THIS OCCURS, SIMPLY MANUALLY DISCONNECT AND RE-CONNECT.

Care and Cleaning:

The Hydradata Electronic module is sealed and can be cleaned simply with soap and water. In a clinical environment, cleaning with an alcohol wipe can also be done. The disposal fluid path also be cleaned is simple soap and water, being sure to completely flush the fluid path after cleaning.