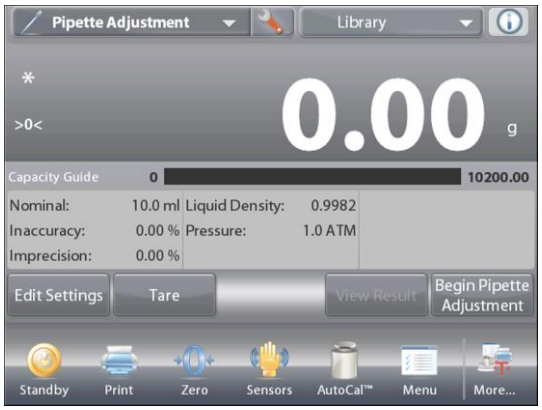
4.13 Pipette Adjustment (not available in EX12001, EX24001, EX35001)

Pipette adjustment checks the accuracy and precision values of pipettes by weight analysis. The balance has a built-in density reference table for water at temperatures between 10°C and 30°C. If other liquids are used for pipette calibration, enter the liquid's density at current room temperature in g/cm^3. Since all calculations are made within the balance, the atmospheric pressure is also required.

Pipette adjustment can be accomplished **manually** (with a key press after each step) or **automatically** (weights are automatically recorded when stable). Calculations made within the balance provide results of inaccuracy and imprecision. Up to 30 samples can be used.



The **PIPETTE ADJUSTMENT** Home screen

Main Display Line
Second Display Line

Reference Fields

Application Buttons

Functions

Application Icon

4.13.1 Pipette Adjustment – Manual (default)

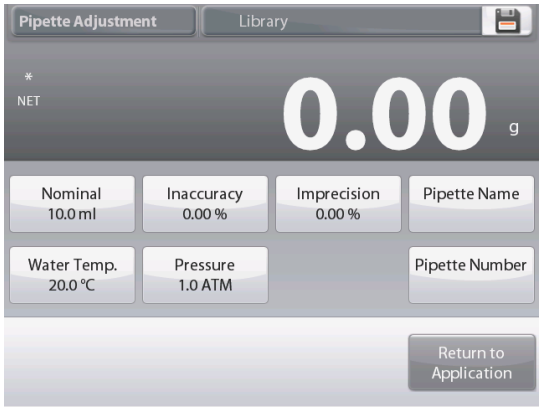
Confirm the default values displayed are correct: Nominal, Inaccuracy, Imprecision, Density, Atmospheric Pressure, Water Temperature, etc.

To edit the default values, touch the **Edit Settings** button.

The **Edit Settings** Screen.

Settings available: **Nominal Capacity, Water Temp, Inaccuracy, Atmospheric Press, Imprecision, Pipette Name, Pipette Number**

Functions Available: **Return to Application**

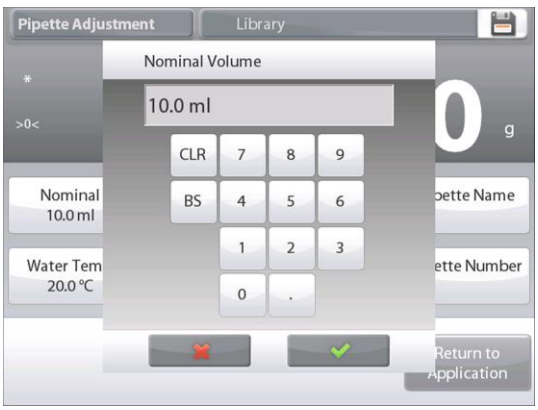


To adjust the pipette Nominal Capacity value, touch the **Nominal** button.

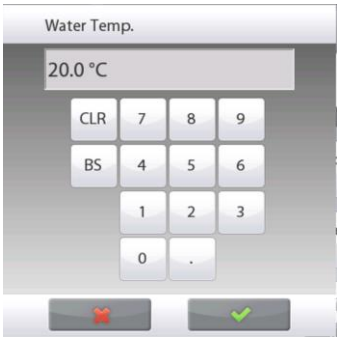
Enter the Nominal Capacity in the keyboard screen that appears, and press ✓.

The display returns to the previous screen with the new value highlighted.

Note: Capacity can be measured in *mL* or *uL*, depending on the Application Setup.



To adjust the water temperature, touch the **Water Temp** button.



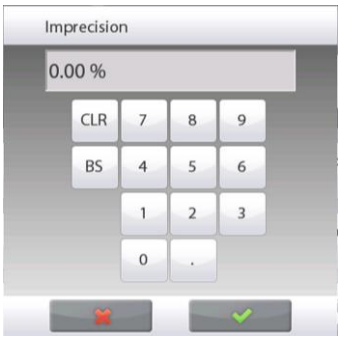
The balance calculates water density based on the water temperature value entered. Measure the actual water temperature using a precision thermometer.

A numeric input window is displayed.

Key in the desired temperature, then press ✓.

The display returns to the previous screen with the new value highlighted.

Continue to enter the required information following the above procedure:



Pipette Inaccuracy, via the **Inaccuracy** button

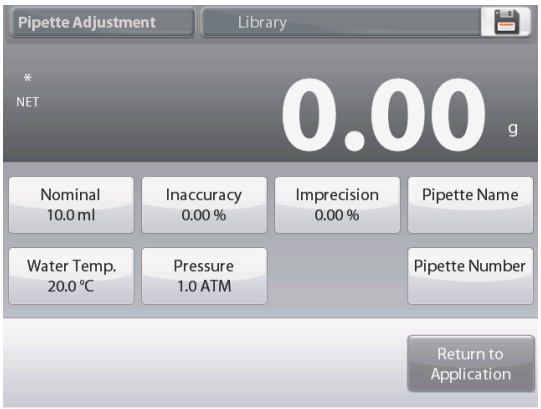
Barometric Pressure, via the **Barometric Pressure** button

Pipette Imprecision, via the **Imprecision** button

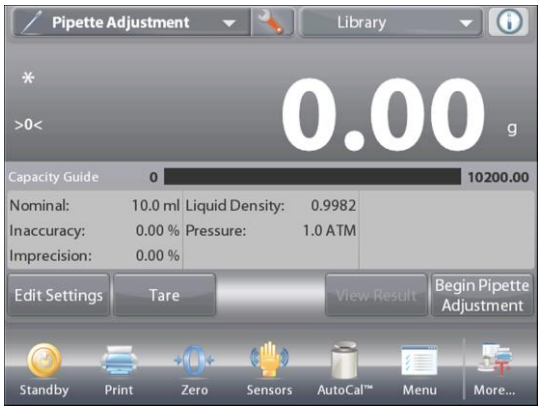
Pipette Name, via the **Pipette Name** button

Pipette Number, via the **Pipette number** button

When finished, press **Return to Application**.
The Application home screen appears, and you can begin the Pipette Adjustment process.



4.13.2 Begin Pipette Adjustment Process

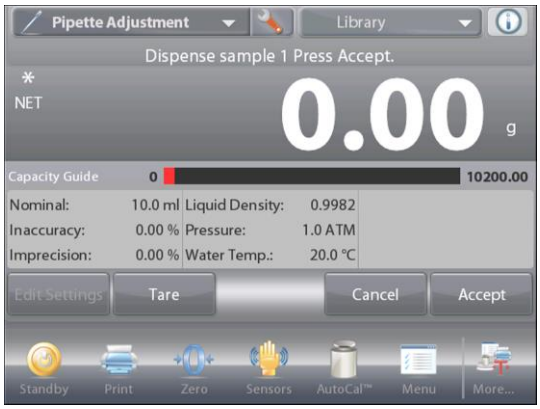


Touch **Begin Pipette Adjustment**.

Follow the screen instructions, to **Place container on the pan.** Then **Press Tare**.

Step 1 – Dispense the First Sample

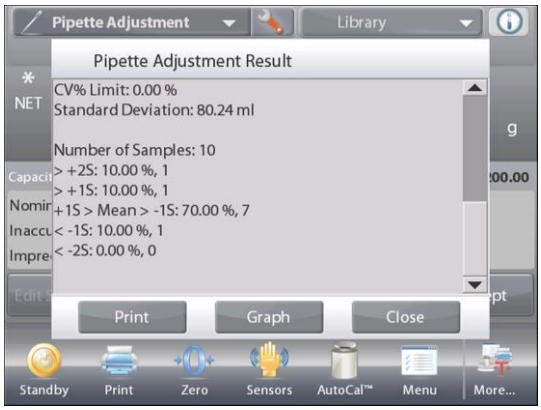
Follow the screen instructions, then press **Accept** to store the first sample weight (liquid).



Continue to follow the screen instructions by dispensing samples and pressing **Accept** to store each sample weight (liquid).

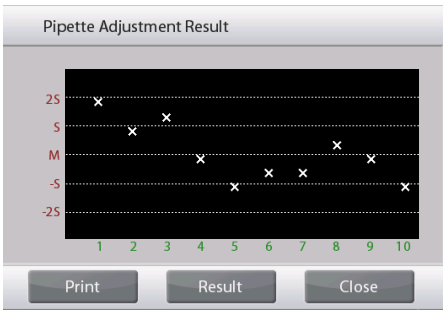
The default number of samples is 10.

It can be changed in Setup, from 2 to 30 samples.



Once all the sample weights have been dispensed, the **Results** screen is automatically displayed.

Press **Graph** to see results plotted. Press **Result** to return to the result screen. Press **Close** to return to the Pipette Adjustment home screen.



Note: To view either the results or graph screens again from the home screen, press the **View Result** button. To start a new Pipette Adjustment process, press **Begin Pipette Adjustment**.

4.13.3 Application Setup

The Application can be customized for various user preferences.

Touch the **Setup** Icon (wrench) to enter the **Application Setup** from the home screen.

The **Setup Menu** appears.

Select the list item to view or change the setting as desired.

To return to the Application home screen, touch **Done**.

The Pipette Adjustment Application Setups (defaults in Bold)

Item	Available Settings	Comments
Enabled	**On**, Off	Turns Application on/off
Auto Sample Mode	On, **Off** o	To select the mode of operation
Number of Samples	2 – 30 (**default 10**)	To select the number of samples
Liquid Type	**Water**, Other	Liquid used during measurements
Unit of Pressure	**ATM**, inHg, KPa, mbar, mmHg, PSIA	To select Atmospheric Pressure unit
Volume Unit (Pipette capacity unit)	**mL**, uL	Nominal capacity unit
Secondary Unit	On, **Off**	To show the Second Display line
Lock Settings	On, **Off**	Press to lock the current setting(s) so they cannot be changed.
Reference fields		
Nominal Volume	**On**, Off	Nominal capacity displayed
Inaccuracy	**On**, Off	Inaccuracy value displayed
Imprecision	**On**, Off	Imprecision value displayed
Liquid Density	**On**, Off	Liquid density value displayed
Barometric Unit	**On**, Off	Barometric Pressure value displayed
Water Temperature	**On**, Off	Water temperature is displayed
Print Options		See Printing Section.
Nominal Volume	**On**, Off	
Inaccuracy	**On**, Off	
Imprecision	**On**, Off	
Liquid Density	**On**, Off	
Barometric Unit	**On**, Off	
Water Temperature	**On**, Off	