

## Quick Start Guide

### E4™ XLS™ + Electronic Pipette

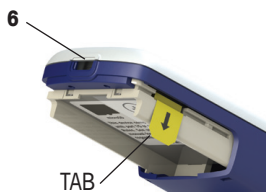
#### Controls and Indicators

1. Display
2. Battery Cover
3. Soft Keys
4. Joystick
5. Tip Ejector
6. Power Port



#### Powering Up and Charging

1. Slide open the main battery compartment cover (2).
2. Pull out the tab that isolates the auxiliary coin cell battery.
3. Place the battery as shown so that the metal contacts on the battery line up with the metal contacts on the pipette.
4. Replace the cover. The pipette will turn on and remind you to set local time. Press the left button (soft key) to clear the notice.
5. When the pipette switches on, the start-up screen will appear briefly.  
(Pressing one of the soft keys will always switch on the pipette.)
6. Plug in the wall power supply to the power port (6) and charge the battery for at least 30 minutes before using.  
For full charge, plug in for 90 minutes.



## Display

1. Current menu or mode
2. Menu level, current operation or page
3. Time
4. Battery charge indicator
5. System icon display
6. Mode carousel
7. Joystick navigation icon
8. Soft key functions



## Basic Navigation

Navigation is done using the soft keys and the joystick control. The soft key and joystick functions change according to the menu or mode displayed.

Soft key functions are displayed above each key, and the available joystick controls are highlighted in the navigation icon.



## Soft Key Functions

### LEFT SOFT KEY

**MAIN:** Displays the **Main Menu**

**CONT:** Continues current pipetting operation

**DONE:** Exits **Settings** and **Options** screens

**RESET:** Purge tip, reset operation to aspiration

**RETURN:** Exits a **Help** screen

**PREV:** Returns to previous mode

### RIGHT SOFT KEY

**OPTIONS:** Available mode options

**CANCEL:** Cancels, exits current action

**HELP:** Operational information

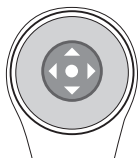
**SELECT:** Select a Preset or Protocol

**LOAD:** Load a Protocol

**SAVE:** Save a Preset or Protocol

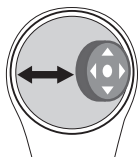
**DELETE:** Delete a Preset or Protocol

## Joystick Controls



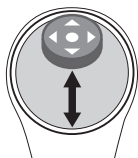
### Press and click the center button – ●

- Aspirate and dispense
- Access menu items
- Edit settings and options
- Choose and save selections



### Move joystick left or right – ◀ or ▶















- Navigate between menu items and pages
- Access **Settings** screens
- Make coarse setting value adjustments



### Move joystick up or down – ▲ or ▼

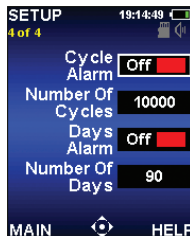
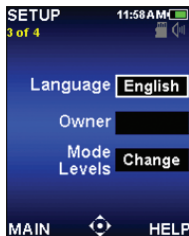
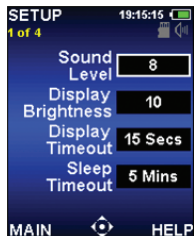
- Aspirate and dispense
- Navigate between settings and options
- Make fine setting value adjustments

## Application Guide What do you want to do?

Mode	Icon	Function
BASIC		Perform simple aspiration and dispense procedures.
MULTI-DISP		Dispense a solution in a sequence of <b>multiple equal</b> or <b>unequal</b> aliquots. Options: <b>timed</b> dispensing, programmed list of <b>fixed</b> volumes, <b>blowout</b> control.
ADVANCED		Pipette with the following options: individually-settable <b>aspiration</b> and/or <b>dispense</b> speeds, <b>mixing</b> , pre-programmed <b>sequence</b> of volumes, pre-programmed list of <b>fixed</b> volumes, <b>blowout</b> control, <b>cycle counter</b> .
MANUAL		Pipette with <b>full manual control</b> of aspiration and dispensing. Useful for slow, careful start/stop pipetting and volume measurement of liquid samples.
REVERSE		Perform <b>reverse</b> pipetting. Useful for pipetting viscous liquids and for minimizing introduction of bubbles into the sample.
SETUP		Adjust <b>instrument settings</b> : sound level, screen brightness, display timeout, time, date, language, levels where each mode appears, and alarms when a user-defined number of pipetting cycles or time have elapsed.
DILUTE		Aspirate <b>multiple</b> solutions and solvents into a pipette tip separated by a column of air. After dispense, the pipette can automatically mix them together.
TITRATE		Dispense a <b>titrant</b> with <b>full manual control</b> and record the volume dispensed.
SERVICE		Provides important instrument information, including Last Service Date, Service Log, serial number, manufacturing date, model number. Information is <b>protected for GLP compliance</b> .
ADMIN		<b>Customize pipette configuration</b> and <b>control use</b> of your pipette by hiding, locking, and unlocking pipetting modes, date, time, alarms, and all settings. Optional <b>password protection</b> . <b>save backups</b> of the entire configuration of the pipette after modifying settings in other modes.
POWER OFF		Turn the pipette off.
PURESPEED*		Procedures for protein/biomolecule purification using <b>Rainin PureSpeed Tips™</b> . For more information, please refer to the PureSpeed manual.
TO LEVEL I & TO LEVEL II	 	Access two levels on the MAIN menu of the pipette on which Modes are displayed. Mode and Level configuration can be customized using SETUP and ADMIN.

\*The PureSpeed protocol is only available on 200 µL, 1000 µL and 1200 µL E4XLS+ models.

# Instrument Settings – SETUP Mode

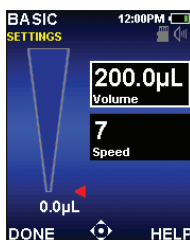


In **SETUP** mode, you can edit the pipette's settings (shown above). Use ▲ and ▼ to scroll through options, ● or ► to select, ◀, ▶, ▲ or ▼ to change value, and ● or DONE to save.

## Simple Operation

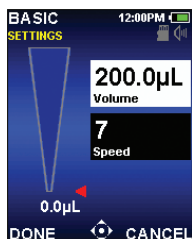
### Volume Setting, Aspiration and Dispensing in **BASIC** Mode

In the **Main Menu**, move the joystick ◀ or ▶ to select **BASIC** and use ● or ▲ or ▼ to access **BASIC** Mode.



Use ▶ to edit pipetting settings. Then use ▲ or ▼ to select volume or speed, and ● or ▶ to edit the specific setting.

Use ◀ or ▶ for fast adjustment and ▲ or ▼ for slow adjustment (hold thumbstick in place for fast scroll.) Afterward, use **DONE** or ● to save settings. Move the joystick ◀ or **DONE** to exit **SETTINGS** screen.

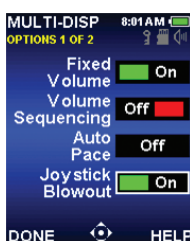


Mount a disposable tip and place tip into the sample.

Use ▲ or ● to aspirate sample, then use ▼ or ● to dispense. After dispense, use ▼ for manual blowout.

## Selecting **OPTIONS**

In a mode with Options, press the **OPTIONS** soft key.



Use ▲ or ▼ to select desired option, and ● or ▶ to turn option ON/OFF.

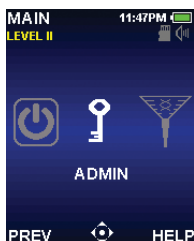
# ADMIN Mode Operation

**ADMIN** Mode can be a helpful GLP compliance tool to enhance adherence to lab SOPs. This mode allows you to control access to pipette settings and to personalize pipette configuration.

- Mode Access sets individual modes as Locked (unalterable) or Hidden (inaccessible).
- Service-related settings such as Date/Time and Alarms can be individually controlled.
- The administrator can passcode-protect access to **ADMIN** mode, save the entire Settings profile of the pipette as a **User Preset**, or restore the pipette to factory settings.

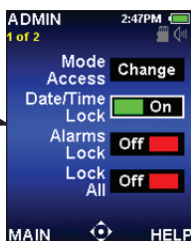
## Managing Access to Modes and Settings

Select **ADMIN** mode from MAIN menu level II. Then use ● or ▲ or ▼ to select function.



Use ▲ or ▼, then ● to select mode to change. Use ◀ or ▶ to select whether a mode is UNLOCKED, HIDDEN or LOCKED. Select **DONE** when finished.

Use ● or ▶ to enter Mode Access. Use ▼ to scroll to page 2 of **ADMIN** mode.



Use ● to switch Locks ON/OFF for Date/Time, Alarms, or All settings.

## Setting the Passcode, Saving User Presets, and Resetting the Pipette to Factory Defaults

Select **ADMIN** mode, then in page 2 of the menu use ▲, ▼ and ● to select Set Passcode, User Preset(s), or Factory Defaults.



Enter a 4-digit numeric code (using ◀, ▶, ▲, ▼ and ● to select numbers) and press **DONE**.



To save User Presets, select "New" using ● then enter a file-name (using ◀, ▶, ▲, ▼ and ●) then press **SAVE**.

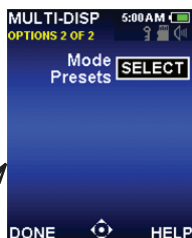


Press **CONT** to reset pipette settings to factory defaults.

# Setting Up Mode Presets

**Mode Presets** allow a user to save multiple personalized pipetting profiles for each mode and access them whenever necessary. Mode Presets allow rapid recall of favorite protocols.

When finished editing pipetting settings press soft key for **OPTIONS**.



In the **OPTIONS** screen, use ▲ or ▼ to scroll to Mode Presets and press ● to enter the **Preset Select** screen.

In the **Preset Select** screen select "New" using ▲, ▼ and SELECT.



Enter characters for the Preset name using ◀, ▶, ▲, ▼ and ●. After entering a filename, press the **SAVE** softkey.

A new settings field will indicate the name of the Preset file currently loaded.



This Quick Start Guide shows pipette controls, navigation and simple operation for firmware version 1.4. For more information see User Manual, Cat. No. 9920-396.

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