# **Dispense Mode**

### **Batch Delivery with Teledyne ISCO Syringe Pumps**

## **Overview**

For applications such as reactant feed and batch delivery where a specified volume is pumped, Dispense Mode is an option available with Teledyne ISCO syringe pumps. Older pump controllers require custom software to run in dispense mode; newer controllers include dispense mode as a standard feature.

To determine which controller your system has, refer to technical bulletin TB28 D-Series Pump Controller Versions.

Current Controller – If your pump controller has a dis-

pense mode key on the control panel DISP ( DISP )it

does not require custom software for dispense mode.

**Older Controller** – If your pump controller does not have the DISP key, it requires custom software for dispense mode. Software versions are listed by pump model below:

1000D	Custom 517
260/500/100D	Custom 521
65D	Custom 528

Contact Teledyne ISCO to obtain the correct custom software. For software installation information, refer to Technical Bulletin <u>TB09 Flash Memory Upgrade</u> on the ISCO public web site.

Dispense mode flow rate begins at zero, ramps up to level out at the programmed flow rate, then ramps back down to zero, delivering a precise specified volume. The slope rate and run time are dependent upon the pump model being used.



Figure 1: Depiction of dispense mode sequence

#### Note

For time-controlled delivery, you must run the pump in standard gradient mode, as described in Section 7 of the D-Series Pump user manual.

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# **Running in Dispense Mode**

In order to access Dispense Mode control, first press CONST FLOW (CONST FLOW). The run screen will display the Dispense Mode ON or OFF status, as in the example below:



#### Figure 2: Run screen with Dispense Mode on

Toggle Dispense Mode off or on by pressing

DISP (DISP) (or DMODE (B) for older pump controllers). Note that pressing the DISP key while in Constant Pressure mode will have no effect.

To adjust the flow rate, press FLOWRATE ( A

enter the desired rate using the number keys, and press

(ENTER).

To specify the volume of the batch delivered, press

VOLUME ( C ), enter the desired volume using the

number keys, and press ( ENTER ).

To dispense the batch, press (**RUN**). The sequence runs once, then stops. To repeat the sequence, press

RUN ) again.

#### Note

When the system is in Dispense Mode (DMODE ON), all gradient modes, constant pressure mode, and auto-refill, as well as serial control, are unavailable until Dispense Mode is turned off (DMODE OFF).

Last modified November 2, 2012

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