

Custom Software Versions for Legacy and Current Controllers

For Syringe Pumps

Teledyne Instruments, Incorporated



Syringe Pump Technical Bulletin TB33

Overview

Some applications for syringe pumps require different or additional functions than those available with the standard controller software.

These needs are fulfilled by special versions of the controller software, available from Teledyne Isco.

Obtaining and Installing the Correct Software for your Controller

The D-Series pump controller underwent design updates in November 2011, and the HL-Series pump controller underwent the same in October 2013. Some software is only compatible with the legacy version, and some software is only compatible with

the current version. If you are unsure which controller version you have, refer to Technical Bulletin [TB28 D-Series Syringe Pump Controller Versions](#) before selecting software for, servicing, or operating the controller.

The selected software will be delivered in a .zip file. For software installation instructions, refer to Technical Bulletin [TB09 Flash Memory Upgrade for Syringe Pump Controller](#). This bulletin includes software installation instructions for both controller versions.

The custom software versions available are described in the following selection guide, according to controller version.

Legacy Controller



Demo77c – Supports 500HP pump (does not support other pumps).

Demo77d – For dual pump system. The first pump is in constant flow mode, and the second pump is in constant pressure mode. When the first pump reaches the refill point, the pumps trade modes. In this manner, the pumps will continue to trade until stopped.

Demo 79 – For electric valves for pumps 100D/DX, 260D, and 500D.

Demo79e – Smooths the flow rate and pressure for pumps 100D/DX, 260D, and 500D.

Demo79L – Improves pressure control at high serial baud rates in constant pressure mode.

Demo79s – For electric valves with constant flow modifier addition.

Demo86 – Causes the controller to ignore a new serial command until it has processed and executed the last serial command. It also displays volume in a resolution higher by a decimal point.

Custom 100 – Supports the 1000D pump only (will not work with other pumps).

1000DX – Supports the 1000DX pump only (will not work with other pumps).

Custom 115 – Supports single pump operation of all pump models, including 1000D.

Custom 115d – Supports the 4-20mA output for all pump models, including 1000D.

Custom 125d – Supports the 500HV pump (will not work with other pumps).

Custom130a – Supports the 260HP pump (will not work with other pumps).

Custom130b – For dual 260HP system. The first pump is in constant flow mode, and the second pump is in constant pressure mode. When the first pump reaches the refill point, the pumps trade modes. In this manner, the pumps will continue to trade until stopped.

Custom 136 – Supports 1000DXX pump (will not work with other pumps).

Custom 137b – Supports the 260SP and 500SP short pumps.

Custom 150 – Supports the 65DM pump (10,000psi) only.

Custom 502e – Supports the 65D pump (20,000psi) will not work with other pumps.

Custom 505b – Supports the HL (Hazardous Location) Series pumps.

Custom 521 – Dispense Mode for 100DM/DX, 260D, and 500D: Pumps A, B, and C. For details about running in dispense mode, refer to Technical Bulletin [TB11 Dispense Mode](#).

Custom 527e – Demo 79 (electric valve) software with pressure limits defaulted to 0 (zero) psi.

Custom 543a – Supports the 65HP pump (will not work with other pumps).

Current Controller



D Series



HL

1.10.0002 – Enables use of a 5V transducer (instead of the standard 10V one), improved from 1.09.0008. Does not allow 65D or 65HP pumps to use the 5V transducer.

This is a clamp transducer with input up to 5.8035V.

Software Part #60-5364-386

1.10.0003 – Supports settable waiting pressure for multi-pump operation in constant pressure mode.

Will not work with 500HPX pumps.

Can be disabled by setting the Wait @ Pressure to zero (0).

Software Part #60-5364-378

1.10.0004 – Software improved from 1.09.0009 to include 500HPX pumps.

Software Part #60-5364-379

1.10.0006 – Enables two serial commands, for gradient mode and dispense mode.

1. Serial command for end of gradient (valid gradient file required).

LGE, F:XX, A:0X, where:

XX == File number, and

0X = action 0-final_hold 1-final_stop 2-initial_hold 3-initial_run

2. Serial command for setting the dispense volume.

DISPENSEX=XXX.XXX, where:

X=pump A,B,C,D, and

XXX.XXX volume

If there is insufficient volume, the software will not set the volume, and instead display BAD OPERAND.

Software Part #60-5364-406

1.10.0009 – Code for Model 260SP and 500SP short pumps (only).

INPUT bit 3 for refill of pump A:

5 volt normal 0 volt refill.

INPUT bit 4 for refill of pump B:

5 volt normal 0 volt refill.

ANALOG input 3:

>7.5VDC = Constant flow mode;

< 5VDC = Constant pressure mode, pump A.

ANALOG input 4:

> 7.5VDC = Constant flow mode;

Below 5VDC = Constant pressure mode, pump B.

Software Part #60-5364-409

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