



# Firmware Upgrade Options

## ALADDIN SYRINGE PUMPS



### V1.0 UPGRADE - LINEAR GRADIENT PUMPING

MODEL: 505834 (Firmware 1.0 Upgrade) - Compatible with all Aladdin Syringe Pumps (except model AL-300)

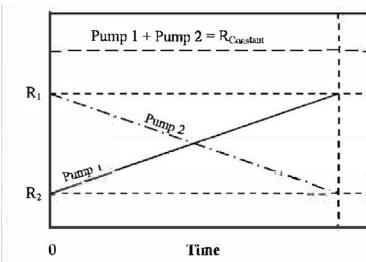
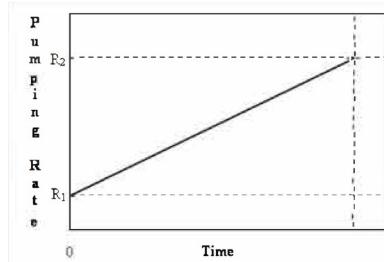
- Smooth linear increasing or decreasing gradient
- Set the starting rate, ending rate, and the time
- Pre-program multiple gradients plus any other AL-1000 programming feature

#### Continuous Pumping - Next Generation Continuous Infusion Syringe Pump System

- Continuous Pumping Mode provides a precise continuous flow without flow rate drop-offs or pauses. Requires a dual pump system (ie. AL-2000) with a 1.0 or 2.0 upgrade in each pump.
- Offers additional functions for more advanced programming.

#### Constant Flow Rate - Gradient Pumping Function:

- Maintains constant total flow rate using two pumps
- Set Pump 1 to linearly increase pumping rate
- Set Pump 2 to linearly decrease pumping rate
- Sum of Pump 1 and Pump 2's flow rates remain a constant
- Can be used with any Aladdin dual pumping system  
\*Requires a dual pump system with an 1.0 or 2.0 upgrade in each pump.



## V2.0 UPGRADE (GRADIENT PUMPING + INCREASED PROGRAM MEMORY)

MODEL: 505835 (Firmware 2.0 Upgrade) - Compatible with all Aladdin Syringe Pumps (except model AL-300)

### Description

- Contains all of the features of the 1.0 Firmware Upgrade (505834), plus:
  - Increases the number of possible programmable phases from 41 to 340
  - Smooth linear increasing or decreasing gradient
  - Set the starting rate, ending rate, and the time
  - Pre-program multiple gradients plus any other Aladdin programming feature.
- Pumps can be field upgraded to 1.0 or 2.0 versions, or installed at point of purchase.

All pumps except for the AL-300 can be upgraded.

## NOTES FOR OPERATING WITH ANABOX (1.0 VS 2.0)

### Aladdin Flow Controllers

- The Aladdin Flow Controller 2.0 (505838) allows for automatic interfacing directly with any computer platform, whereas the Aladdin Flow Controller 1.0 (505837) operates as a standalone component. Paired with an Aladdin 1.0 or 2.0 Firmware Upgrade, only the Aladdin Flow Controller 2.0 offers *simultaneous dual pumping modes and alternating control*.
- Further, with either the 1.0 or 2.0 Aladdin Firmware Upgrade and the Aladdin Flow Controller 2.0, continuous pumping is possible.

**NOTE:** The Aladdin Flow Controller 2.0 paired with any Aladdin Firmware Upgrade is **required** for continuous pumping mode. However, an Aladdin Firmware Upgrade is not required for simultaneous/alternating pumping operations.

- Firmware upgrades can be purchased with your pump or can be field upgradable.

## AL-1000 PRODUCT FAMILY COMPATIBILITY LIST

- AL-1000
- AL-1000MF
- AL-1000HP
- AL-1000HP2
- AL-2000
- AL-4000
- AL-4000MF
- AL-6000
- AL-8000
- AL-1200
- AL-1200FW1

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