

## NE-300 "Just Infusion" Syringe Pump





- Holds small or big syringes up to 60 mL
- Pump continuously until you stop the pump
- Infusion rate can be changed while pumping
- Remembers previous settings on power up
- Power failure mode allows pump to continue pumping after a reset
- Syringe purge mode
- Displays total volume dispensed in mL or µL units
- Maximum pumping rate of 1500 mL/hr with a 60 mL syringe
- Precise reproducible flow rates
- Selectable infusion rates units: mL/hr, μL/hr, mL/min, μL/min

### "Infuses Only!"

- -Does not withdraw, volume target, or have computer interface
- -Just the features that you want and none that you don't want to pay for



## NE – 500 Application Syringe Pump





- Computer controllable: networkable up to 100 pumps
- **Stand-alone operation:** pre-program the pump with a dispensing program, then operate the pump from an attached Foot Switch, button, or I/O controller

Add the OEM Starter Kit to run as a fully functional, stand-alone pump

Designed for OEM applications, this pump has the same mechanisms and electronics as the NE-1000 aside from the front panel controls.

- · Built for Automation
- Operates from a computer
- · Infusion and withdrawal
- · Set a single pumping rate and/or dispensing volume
- Program up to 41 pumping phases that change pumping rates, set dispensing volumes, insert pauses, control and respond to external signals, sound the buzzer
- · Network, control, and monitor up to 100 pumps with one computer
- · Motor stall detection available in NE-501 model (\$550)
- · Dispensing accuracy of ± 1%
- Unlimited lifetime technical support Two year warranty



### Starter Kit for the NE-500 OEM Pump

- Allows user to interactively communicate to the pump with a computer
- Includes: power supply, Pump-to-PC network cable, and user manual
- Power supply for the NE-500 OEM Pump. Needed for additional OEM pumps used in a pump network in a laboratory setting.



## NE – 1000 Programmable Syringe Pump





- Built for Automation
- · Operates stand-alone or from a computer
- Infuses and withdraws
- Applications range from simple infusions to complex pumping programs
- Programmable preset protocols
- Program up to 41 pumping phases that change pumping rates, set, dispensing volumes, insert pauses, control and respond to external signals, sound the buzzer
- RS-232 and TTL logic control interfaces
- Network, control, and monitor up to 100 pumps with one computer
- Worldwide power supplies available
- Motor stall detection
- Non-volatile memory of all parameters and programming
- Upgradeable to the 'X and 'X2 advanced firmware versions for gradient pumping and increased program memory
- Plus many, many more features!!!
- Dispensing accuracy of +/-1%
- Unlimited lifetime technical support
- Two year warranty



## NE – 4000 Double – Syringe Pump





- Accepts 2 different syringes from the smallest size available up to 60 ml or 140 ml partially filled
- 2 different sized syringes can be used for proportional infusion
- Pumping rate as low as 1.459 ml/hr with a 1 mL syringe or as high as 127.2 ml/min with a 60 mL syringe

- Built for Automation
- Operates stand-alone or from a computer
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- Applications range from simple infusions to complex pumping programs
- Programmable preset protocols
- Program up to 41 pumping phases that change pumping rates, set, dispensing volumes, insert pauses, control and respond to external signals, sound the buzzer
- RS-232 and TTL logic control interfaces
- Network, control, and monitor up to 100 pumps with one computer
- Worldwide power supplies available
- Motor stall detection
- Non-volatile memory of all parameters and programming
- Upgradeable to the 'X and 'X2 advanced firmware versions for gradient pumping and increased program memory
- Plus many, many more features!!!
- Dispensing accuracy of +/-1%
- Unlimited lifetime technical support
- Two year warranty



## NE - 1600 Six - Syringe Pump





- Similar to NE-1000 but holds 2, 4, or 6 syringes of up to 60 cc each.
- Infusion rates from 0.57 μL/hr (1 cc syringe) to 1337 ml/hr (60 cc syringe)
- Higher flow rate models available

- Built for Automation
- Operates stand-alone or from a computer
- Infuses and withdraws
- Applications range from simple infusions to complex pumping programs
- Programmable preset protocols
- Program up to 41 pumping phases that change pumping rates, set, dispensing volumes, insert pauses, control and respond to external signals, sound the buzzer
- RS-232 and TTL logic control interfaces
- Network, control, and monitor up to 100 pumps with one computer
- Worldwide power supplies available
- Motor stall detection
- Non-volatile memory of all parameters and programming
- Upgradeable to the 'X and 'X2 advanced firmware versions for gradient pumping and increased program memory
- Plus many, many more features!!!
- Dispensing accuracy of +/-1%
- Unlimited lifetime technical support
- Two year warranty



## NE - 1800 Eight - Syringe Pump





- Similar to NE-1000 but holds 2, 4, 6, or 8 syringes of up to 10 cc each.
- Infusion rates from 0.57 μL/hr (1 cc syringe) to 380 ml/hr (10 cc syringe)
- Higher flow rate models available

- Built for Automation
- · Operates stand-alone or from a computer
- Infuses and withdraws
- Applications range from simple infusions to complex pumping programs
- Programmable preset protocols
- Program up to 41 pumping phases that change pumping rates, set, dispensing volumes, insert pauses, control and respond to external signals, sound the buzzer
- RS-232 and TTL logic control interfaces
- Network, control, and monitor up to 100 pumps with one computer
- Worldwide power supplies available
- Motor stall detection
- Non-volatile memory of all parameters and programming
- Upgradeable to the 'X and 'X2 advanced firmware versions for gradient pumping and increased program memory
- Plus many, many more features!!!
- Dispensing accuracy of +/-1%
- Unlimited lifetime technical support
- Two year warranty



## **Syringe Pump Accessories**





### **Ana-Box Closed Loop Analog Sensor Interface**

### **Description:**

- Vary the pumping rate in proportion to a variable voltage input
- Start or stop pump at set voltages
- Vary the pumping rate to maintain a voltage window
- Attaches to any pump in the NE-1000 Family



#### **Foot Switch**

#### **Description:**

- Start, stop, or trigger the next phase on your syringe pump
- Attach to any of the NE-1000 family pumps to allow stand-alone operation
- Utilizes the TTL logic port on syringe pump
- Quick and simple setup



#### **Pump – PC Primary Network Cable**

#### **Description:**

- Allows full control over syringe pumps through your computer
- DB-9 adapter connects to 9-pin serial port (25pin adapters available upon request)
- Utilizes the RS-232 communications port of syringe pump
- Available in 7' and 25' length cable



## **Syringe Pump Accessories**





#### RS - 232 to USB Converter

#### **Description:**

- Adapter to add a DB-9 RS-232 serial port to your computer by using an USB port
- Includes software driver CD



### **Pump to Pump Secondary Network Cable**

#### **Description:**

- Allows networking of two or more syringe pumps to a single computer
- Quick and simple setup
- Utilizes the RS-232 communications port of syringe pump
- Available in 7' and 25' length cable
- Requires first pump to be connected with primary network cable



### **Pump Synchronization Cable**

#### **Description:**

- Used for creating a continuous infusion system or dual infusion system
- Establishes a communications link between two pumps to duplicate the exact or inverse commands issued to one pump.
- Utilizes the RS-232 logic port on syringe pump
- Quick and simple setup
- This is the new replacement cable for CBL-TTL-1 unless the use of the TTL ports for synchronization is preferred



## **Syringe Pump Accessories**





#### **Lockout Disable Key**

#### **Description:**

- For use with the syringe pump's "Lockout Mode"
- Prevent unauthorized or accidental changes to the settings by locking the keypad
- The "Lockout Disable" key unlocks the keypad and allows settings to be changed
- Utilizes the TTL logic port on syringe pump

### **Single Valve Control Box**

#### **Description:**

- Attach your 12V DC valve and the control box will open or close your valve according to the pumping direction
- Utilizes the TTL logic port on syringe pump
- Includes power supply for valve

#### **Dual Valve Control Box**

#### Description:

- Attach your two 12V DC valves and the control box will open or close your valves according to the pumping directions of your two pumps
- Includes CBL-TTL-1 cable to allow synchronized pumping between two pumps
- Utilizes the TTL logic ports on both syringe pumps
- Includes power supply for valves

KGC RESOURCES

### **Syringe Heater**







#### **Syringe Heater Kit**

- Heating device for syringes that requires temperaturecontrolled dispensing
- Heats syringes to over 100° Celsius
- Digitally set the heater set point
- Temperature sensor in heating pad
- Setpoint retained in memory
- Controller will heat the syringe and hold the set temperature using an on/off or PID control algorithm Multiple syringe heater pads can be attached to the control unit
- Heated syringe can be mounted on a syringe pump
- Syringe Heater Kit includes Control-Unit power cable and primary-Syringe-Heater-Pad





- For attaching a second heating pad to SYRINGE-HEATER-KIT
- Includes a Y-adapter to connect to primary heating pad
- Temperature sensed in primary heating pad only
- For adding third, up to sixteen, heating pads
- Y-adapter not needed to attach third, and up, heating pads to Control-Unit
- Temperature sensed in primary heating pad only