Excelsior Medical

OperationManual

for the

Pharm-AssistDispensing Pump

Revision 1, November 2006

Table of Contents

Introduction

The Pharm-Assist dispensing pump was designed by pharmacists to make the task of transferring fluids as easy, accurate, time-efficient, and cost-effective as possible. This has been achieved through the pump's versatile and user-friendly design.

The Pharm-Assist pump can increase efficiency in a variety of pharmacy functions that require the accurate dispensing of fluids. The following are a few examples of the Pharm-Assist's applications.

>   Batching syringes (as small as 3ml)

>   Reconstitution of antibiotics (bulk drug vials or manufacturers' piggy back)

>   Transferring large volumes in forward or reverse (up to 9,999m1)

>   Filling infusion devices (ie: Intermates, Homepumps, RediMeds, Pharmacia-Deltec cassettes, Mini-Bags, etc.)

>   Transferring oral liquids

>   Batching respiratory and anesthesia medications

>   Batching Saline and Heparin flush syringes

>   Printing syringe labels when used in conjunction with the Excelsior Thermal Labeler
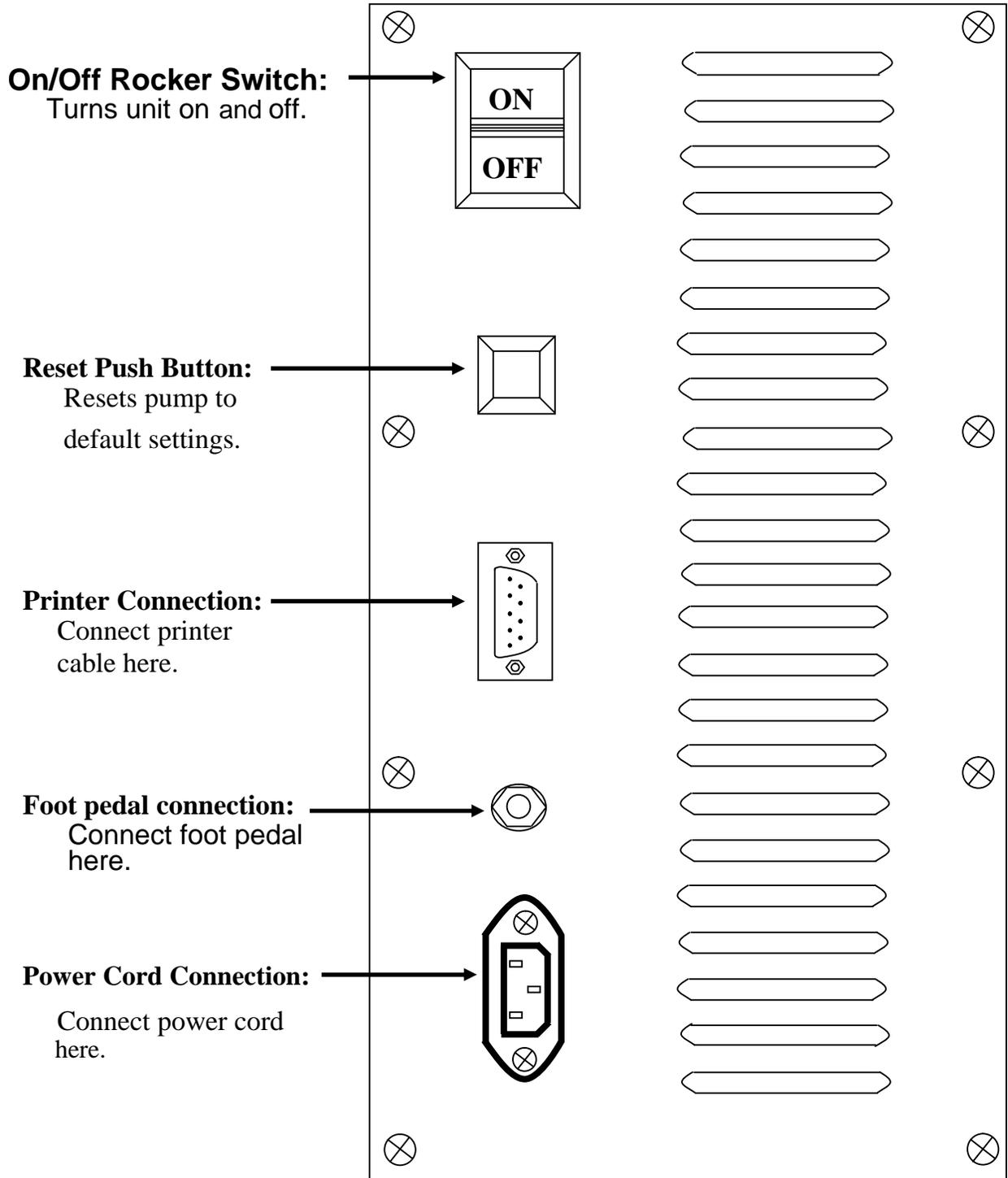
Cautions and Warnings

- Tubing set fluid path and area under protective end caps are sterile and non-pyrogenic in unopened and undamaged package. Use aseptic techniques with tubing set when removing caps, spiking diluent containers and making connections to luer adapter.

- The dispensing set should be changed within 24-hours, if required, due to touch contamination. **DO NOT** re-sterilize or reuse, it may cause damage to the tubing.

- Change the tubing set prior to each change of drug or incompatible fluid to avoid harmful interactions.

- **DO NOT USE** for intravenous administration or other routes of direct patient delivery.

- **DO NOT** exceed the maximum speed indicated for use with needles and filters.

Needles or Filter	Maximum Speed
16 ga needle	99
18 ga needle	35
smaller needle than 18 ga	5
0.2 micron filter	5
0.5 micron filter	10

- **ADJUST** may need to be used for a change in fluid viscosity or pump speed, use of needles, use of in-line filters, filling containers that create back pressure such as elastomerics or microbore tubing or a significant change in desired volume.

- Use of tubing sets with incorrect specifications may adversely affect volume accuracy, pump reliability and performance.

- **DO NOT** load or unload the tubing set with the power on or operate the pump without the blue protective plate in front of the rollers. Injury to fingers may occur.

- The power cord must be connected to a properly grounded hospital grade 11V receptacle for proper pump performance and safety.

- Fluid inside pump may cause damage and affect performance. Clean spills immediately.

- Use Heavy Duty "BXOl", "BXO2', or "BXO3" tubing when filling Block Medical Home pumps.

- Pump operation must be monitored at the beginning of each cycle and at intervals during the cycle to ensure the Pharm-Assist is operating within acceptable limits. Use **ADJUST** to achieve accuracy.

Rear View of the Pharm-Assist – Cable connections and switch locations.

On/Off Rocker Switch:
Turns unit on and off.

ON

OFF

Reset Push Button:
Resets pump to

default settings.

Printer Connection:
Connect printer
cable here.

Foot pedal connection:
Connect foot pedal
here.

Power Cord Connection:
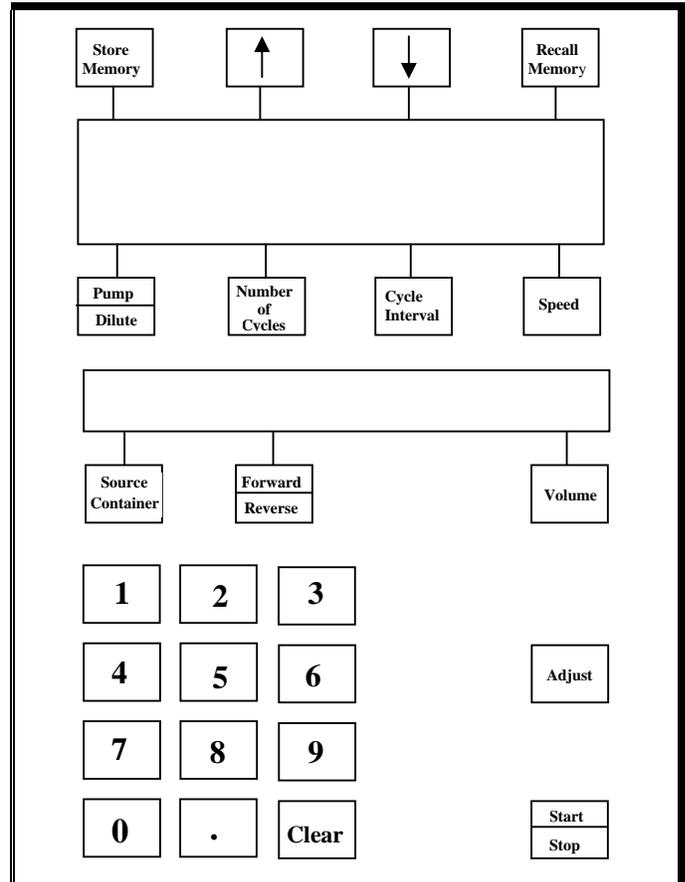
Connect power cord
here.

Keypad functions

To use each feature of the pump, simply press the numeric keys to enter the value followed by the function key. The programmed values will be displayed on the LCD's directly above or below the function keys.

NUMBER Keys: Used to enter numeric values prior to a function key. This method is used to reduce the required number of keystrokes.

CLEAR **Key:** Functions as a clear entry key, used to clear the current entry on the lower LCD prior to pressing a function key. It is also used to escape out of resume mode to abort an interrupted dispense cycle.

VOLUME **Key**: The default is 0 ml. This key is used to enter the desired volume to be dispensed by the pump. To enter a desired volume, simply press the numeric keys followed by *VOLUME*.

Example: To enter a Volume of 50m1, press 5, 0, and the *VOLUME* key. 50m1 will now be displayed in the Lower LCD above this key.

Store Memory	↑	↓	Recall Memory
Pump / Dilute	Number of Cycles	Cycle Interval	Speed
Source Container	Forward / Reverse		Volume
1	2	3	
4	5	6	Adjust
7	8	9	
0	.	Clear	Start / Stop

START/STOP Key: Used to start and stop the pump. This key can be interchangeably used with the foot pedal. The dispensing cycle may be interrupted by pressing this key. The pump will be in "resume mode" and "resume" will be displayed in the upper line of the top LCD. In this mode, the operator can continue the interrupted dispense cycle by pressing *START* or abort the cycle by pressing *CLEAR*.

> Example: The dispense cycle is programmed for 50m1 volume and the Pharm-Assist is stopped by pressing **STOP** or the foot pedal. The Pharm-Assist has dispensed only 35m1 of the 50m1. The user can either press START to dispense the remaining 15 ml to complete the desired volume of 50 ml or press CLEAR to abort the cycle and be ready to begin a completely new dispense cycle of 50 ml.

FOOT PEDAL: Interchangeable with the *START/STOP* key.

ADJUST Key - Use this key when the actual measured volume is different from the desired volume. Enter the actual measured volume by using the numeric keys followed by **ADJUST**.

The actual measured volume should always be checked with the desired volume. If the actual measured volume differs from the desired volume, **ADJUST** should be used. Verify the accuracy in a subsequent cycle, and if within specifications (+/- 1%), proceed with the programmed dispensing function.

It is possible to use **ADJUST** more than once if the previous entry was not precise in measurement or if the pump is not accurate. *ADJUST* must be used for each pumping application to achieve the desired accuracy level.

Any change is pumping parameters will necessitate additional use of this feature. Such parameter changes include, but are not limited to:

a) change in fluid viscosity,
b) change in pump speed**,**
c) use of small bore size needles (less than 16g),
d) use of in-line filters,
e) filling containers that create back pressure,
f) significant change **in desired volume** and
g) change in direction from forward to reverse.

Example: The desired program volume is 50m1. The measured volume is found to be 52m1. Enter 5, 2 followed by ADJUST. The upper LCD displays "ADJUSTED" and the pump is now calibrated for 50m1. The volume from the next pump cycle is measured and found to be exactly 50 m1. Note: Choose a convenient, but accurate method for measuring the actual volume. For example you may verify pump accuracy by measuring: a) the output volume of the pump in a syringe, graduated cylinder, or by using a scale to verify the incremental weight of a bag or elastomeric or b) the reduction in volume or weight of the input source container such as a bag, graduated cylinder, syringe, bottle, or other receptacle.

FORWARD/REVERSE Key - The default is forward. Forward will pump fluid from the spike end to the luer end. Reverse will pump fluid from the luer end to the spike end. Pressing this key will alternate or toggle the pump between forward and reverse. "FWD" or "REV" is displayed on the lower LCD display directly above the key.
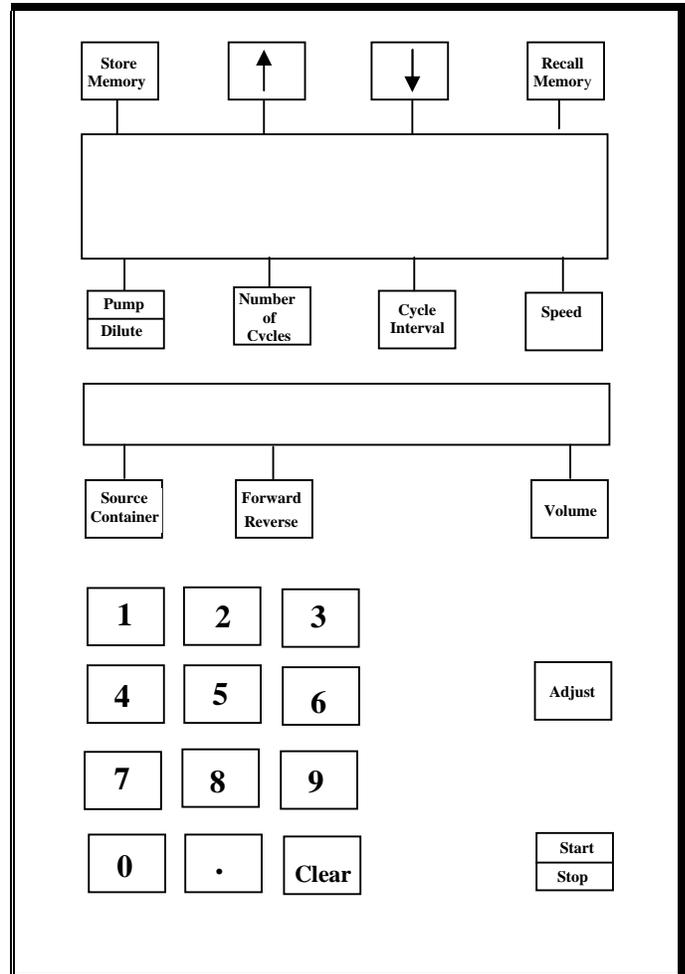
SOURCE CONTAINER Key - The default is "off". The feature will subtract all dispensed volumes pumped in forward operation from the amount entered as source container volume. Reverse operation has no effect on this feature. If there is not enough fluid in the source container to complete a dispense cycle, the pump will beep three times to alert the user. Pumping action will be prevented until the source container volume is increased so that it is equal to or greater than the desired volume; the desired volume is lowered to be equal to or lower than the source container volume; or this feature is turned off.
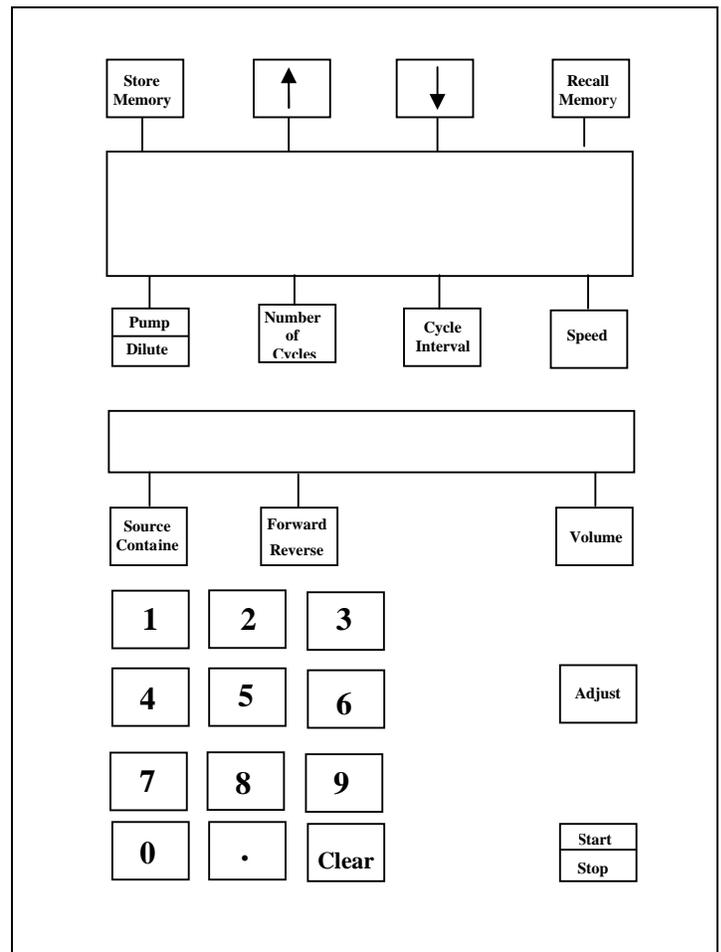
To use the feature, simply enter the initial source container volume by pressing the numeric keys followed **SOURCE CONTAINER.** To turn off the feature, simply press *SOURCE CONTAINER* without pressing the numeric keys. The remaining volume in the source container will be displayed above this function key.

SPEED Key -The default is speed **55.** To change speed, press the numeric keys followed by SPEED. Minimum speed is 1 or approximately 150 ml/minute and maximum speed is 99 or approximately one liter per minute. The speed value will be displayed on the right side of the upper LCD display above the SPEED key.

Maximum speed guidelines for accuracy:

16g needle = 99   18g needle 35
<18g needle = 5   0.2 micron filter =5
0.5 micron filter = 10

NUMBER OF CYCLES Key - The preset is 1. This feature will automatically cycle the pump to complete the number of cycles entered with a selected interval in between each cycle. Enter the desired number of cycles by pressing the numeric keys followed by the **NUMBER OF CYCLES** key. The programmed number of cycles will be displayed directly above the key. The display will count down as each cycle is completed.
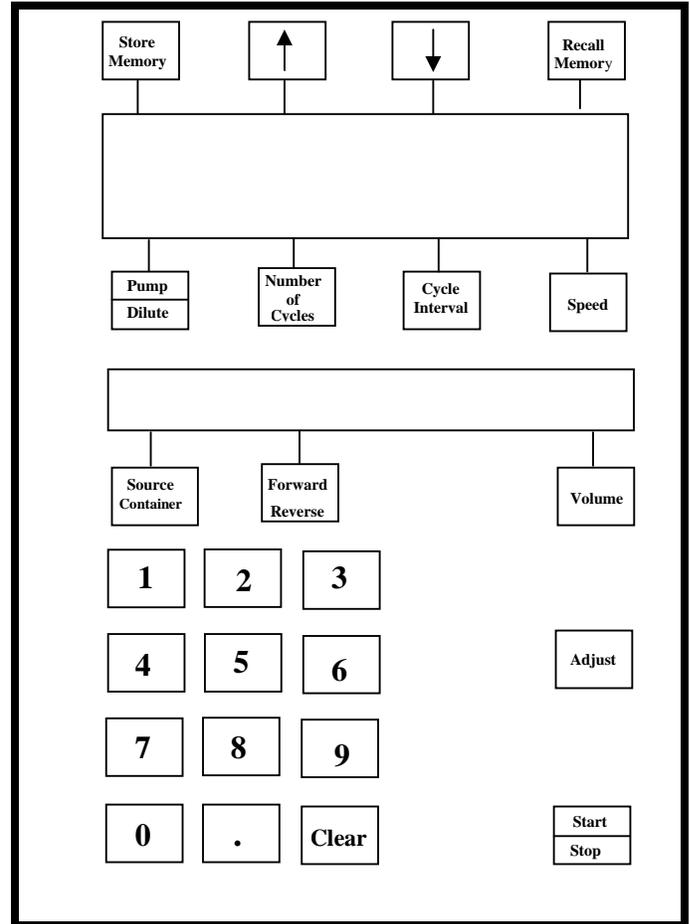
Store Memory	↑	↓	Recall Memory

Pump Dilute	Number of Cycles	Cycle Interval	Speed

Source Containe	Forward Reverse		Volume

1	2	3	
4	5	6	Adjust
7	8	9	
0	.	Clear	Start Stop

CYCLE INTERVAL Key - The preset is 2 seconds. Entries can range from one to nine seconds between deliveries. Enter the amount of seconds by pressing a numeric key followed by the **CYCLE INTERVA**L key. The programmed value will be displayed directly above the key. The display will count down between each dispensing cycle.

PUMP/DILUTE Key - The preset is Pump. Pump is the normal setting. Dilute 1 and Dilute 2 will cause the rollers to reverse at the end of the cycle to pull back a drip of fluid that may occur as a result of filling devices with back pressure such as elastomerics. Pump will pull back no fluid while Dil-1 and Dil-2 will pull back approximately 0.l ml and 0.2 ml respectively. Pressing this key will toggle its value among these three settings. The setting will be displayed directly above the key.

## Memory – Storage, Recall, and Erase of Programs

This feature is used to store up to 20 programs in memory that can be easily retrieved. The memory will store the desired volume, speed, pump/dilute and calibration. Use the store feature after all of these parameters have been set.

1. Set all the parameters on the pump displays (including calibration, volume, speed, and pump/dilute).

2. Select a memory location between 1 and 20 by pressing the numeric keys followed by **STORE MEMORY**. The memory location number will be displayed in the upper left of the top LCD. The location number will be followed by a blank and the letter "A".

3. Select a title for the stored program. Use the up and/or down arrows to change the "A" to the first character of the title. Letters, numbers, and a blank are available. When the desired character is displayed, press **STORE MEMORY**. The display will now have the first selected character followed by an "A".

4. Repeat step 3 for each of the characters. If the title is less than the full width of the display, press **RECALL MEMORY** to eliminate the last undesired "A".

5. The program is stored in memory and may be retrieved at any time by either pressing the memory location number followed by **RECALL MEMORY** or scrolling through all memory locations using the up and/or down arrow keys.

6. To erase a stored program from a memory location, either store another program into that location or press **STORE MEMORY** immediately after the program has been recalled.

NOTE: The 0 memory location is the default pump settings; therefore, by recalling the 0 memory location, the pump is reset.
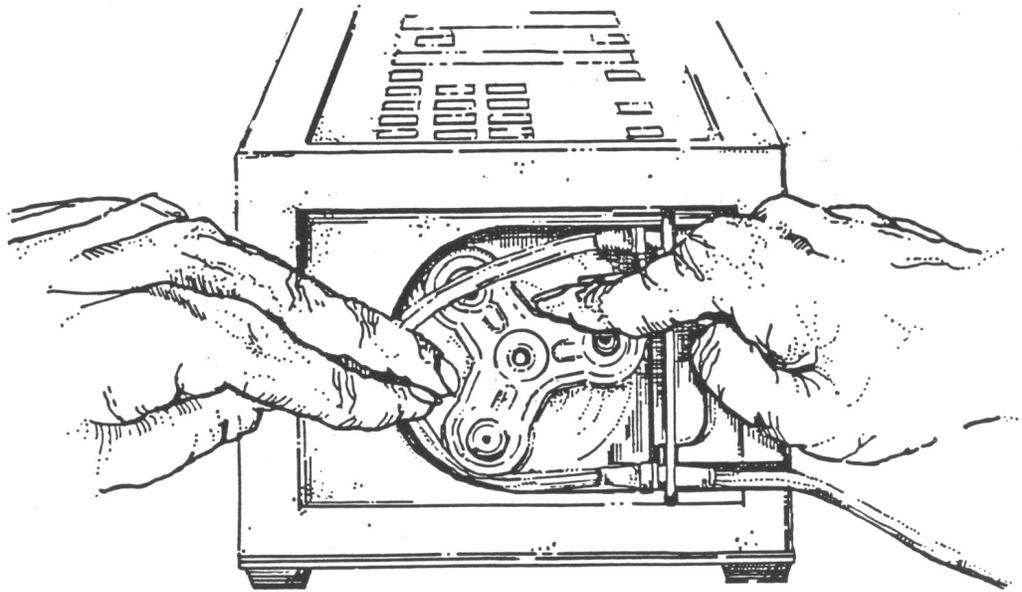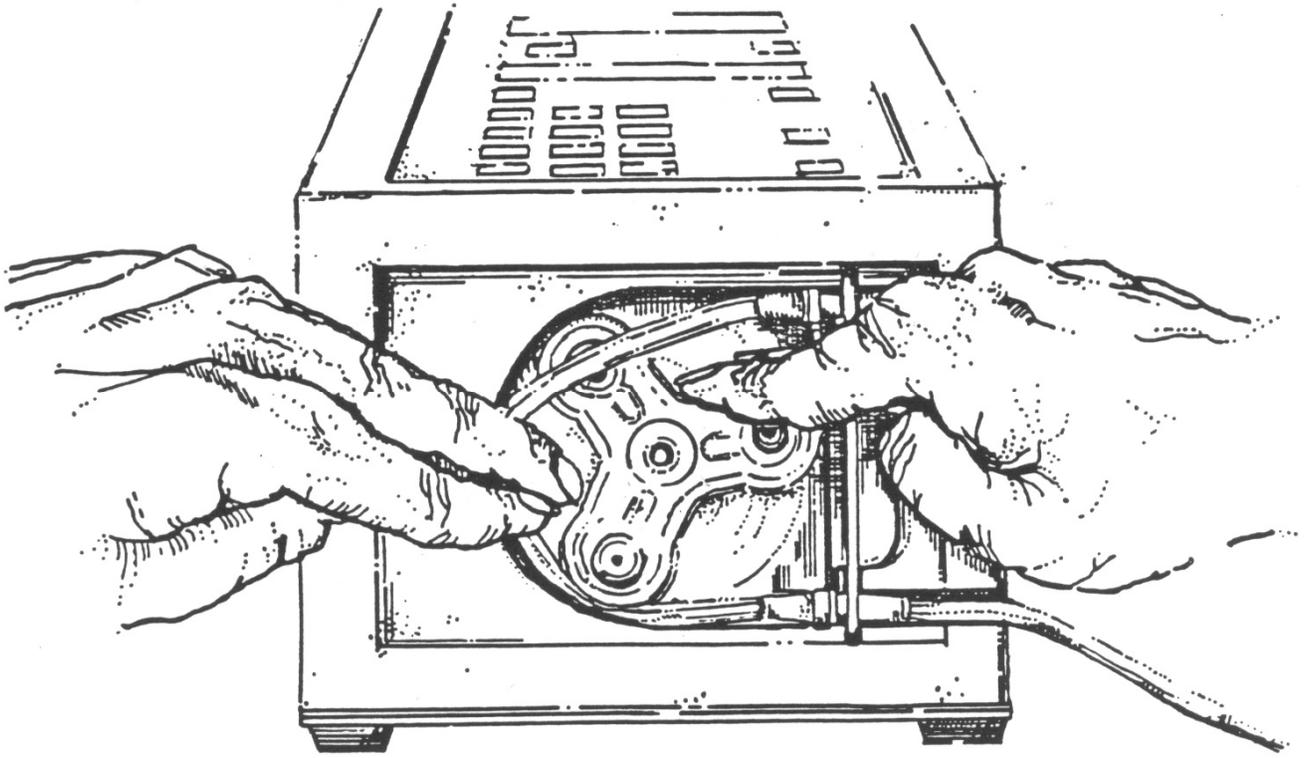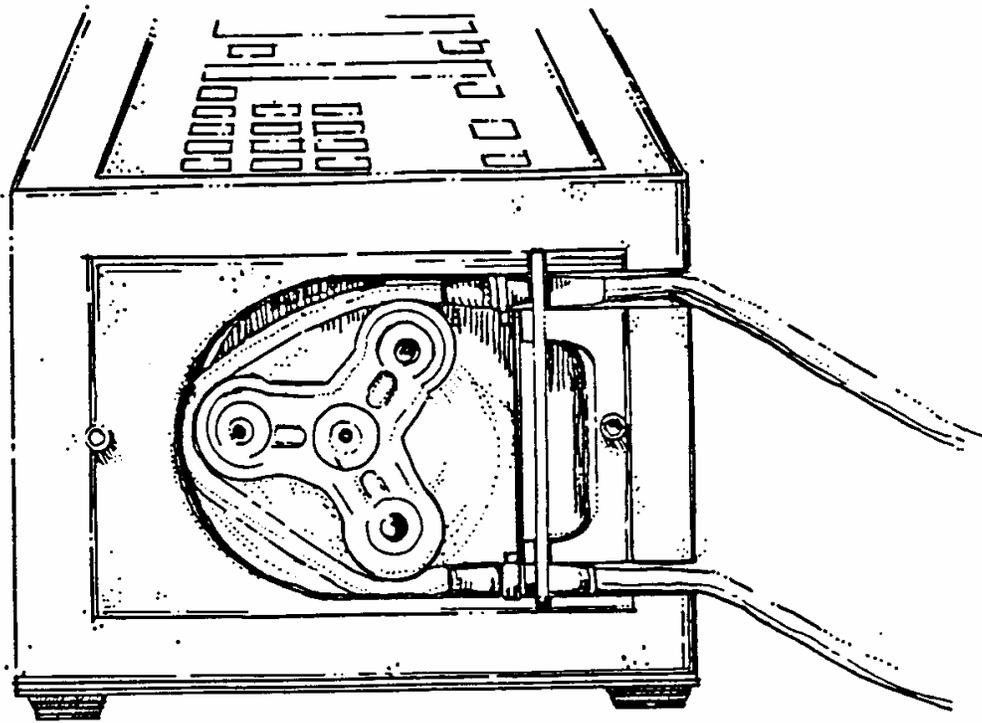
Priming the tubing

Connect the spike end of the tubing set to the diluent and place the needle into a suitable waste container.

Remove the air from the Dispensing set or prime. Run the pump until all of the air bubbles are removed. (approx 27 ml of diluent to prime the PAO1 tubing set)

NOTE: An accurate dose cannot be achieved with air in the Dispensing Set.

Alarms

Dispensing cycle completion: One beep will sound at the end of each cycle to let the user know that the pump has completed the dispensing cycle.

Incorrect Key Sequence: One beep will sound to indicate an incorrect keystroke sequence. For example, the pump will not allow an entry of greater than 999 for number of cycles.

Zero Entry: Two beeps will sound to alert the user that the entry was not accepted and the lowest value is displayed. Number of cycles, cycle interval, and speed will display one.

Maximum Value Exceeded: Two beeps will sound to alert the user that the entry was not accepted and the highest value is displayed. Speed will display 99 and cycle interval will display 9.

Source container: Triple beep to indicate the source container volume is less than the desired volume.

Cleaning:

Immediately turn off the power to the pump. Wipe up fluid spills and splashes immediately to prevent entry into the pump. Use lint-free cloths or swabs only with warm water, isopropyl alcohol, or mild solvents. Do not use any abrasives.

Also clean the inside chamber of the Pharm-Assist , behind the blue front plate, including the rollers with the power **OFF**.

Troubleshooting Guide

1. <u>Silicone tubing herniates or balloons and prevents pumping of fluid:</u>

    a) Filling Block Medical Homepumps; use Heavy Duty tubing (BX series)
    b) Using smaller than 16g needle; switch to 16g needle or significantly reduce the speed of the pump to reduce the back pressure.
    c) Using inline filter; significantly reduce speed to reduce back pressure.

2. <u>Tubing kicks out of pump:</u>

    a) Too much back pressure for the speed (use of needles, filters or filling device). Decrease back pressure or significantly lower speed.
    b) Tubing was not installed properly.

3. <u>Inaccurate filling, but repeatable (consistently wrong):</u>

    a) Use the ADJUST key.

4. <u>Inaccurate filling, not repeatable (varies all over), unequal back pressure because of 18g needle or filter:</u>

    a) Lower the speed.

5. <u>Does not pump and makes loud grinding noise; tubing is herniated and preventing rollers from moving.</u>

    a) Decrease back pressure (use larger needle or remove filter).
    b) Lower the speed.
    c) Use "BX" series tubing.

6. <u>Pump displays are dark:</u>

    a) Power cord not connected.

General Specifications*

Delivery Rate	3 ml/sec to 16 ml/sec (approximately). This may vary slightly and is determined by pump speed, fluid viscosity and back pressure of in-line devices or filling receptacle.
Preset Operating Settings	Forward dispensing (from spike to luer), Speed of 55, one cycle, and 0.0ml volume.
Allowed Volume Entries	0.lml to 9,999m1
Dispensing Volume Accuracy	+/- 1% (using Adjust feature)**
Electrical Requirements	120 VAC/6OHZ
Weight	16 lbs (approximate)
Operating Temperature	45° F- 85° F
Storage Capacity for Programs	20 Stored programs

* Tubing sets with Excelsior specifications ensure accuracy and decrease user variability. Excelsior's set contains a bar connector which fits into a slot on the Pharm-Assist pump. The bar connector keeps the tubing seated properly and decreases user variability in installation.

** The actual measured volume should always be compared with the desired volume. If the actual measured volume differs from the desired volume, **ADJUST** should be used. Verify the accuracy in a subsequent cycle, and if within specifications (+1/- 1%), proceed with the programmed dispensing function. Any change in pumping parameters will necessitate additional use of this feature. Such parameter changes include, but are not limited to:

  a) Change in fluid **viscosity**.
  b) Change in pump **speed**.
  c) Use of **needles** with a smaller bore size than 16g.
  d) Use of in-line **filters.**
  e) Filling containers that create back pressure such as **elastomerics** or **microbore** tubing
  f) Significant change in desired **volume**.
  g) Change from forward to **reverse**.

Warranty

The Pharm-Assist pump is warranted against defects in material and workmanship for a period of six months from the date of delivery. Excelsior will repair or replace, at its option, any product that proves to be defective during the warranty period, provided proper use and maintenance procedures have been followed as described in the operation manual. If upon examination, Excelsior determines that misuse of product is the cause for the repair, all labor, material, and shipping costs involved shall be paid by the Buyer.

All defective products or components shall be returned to Excelsior with a detailed explanation of the failure. Buyer shall obtain a return authorization prior to return of product and all transportation charges must be prepaid.

Limitations: THE PROVISIONS ABOVE CONSTITUTE EXCELSIOR'S SOLE OBLIGATION AND EXCLUDE ALL OTHER REMEDIES OR WARRANTIES EXPRESS, STATUTORY OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, whether or not purposes or specifications are described herein. Excelsior further disclaims any responsibility whatsoever to Buyer or to any other person for injury to person or damage to or loss of property or value caused by any product that been subjected to misuse; negligence, or accident; or misapplied or used in violation of product manuals, instructions or warnings; or modified or repaired by unauthorized persons; or improperly installed. UNDER NO CIRCUMSTANCES SHALL EXCELSIOR BE LIABLE FOR ANY INCIDENTAL, INDIRECT, CONSEQUENTIAL OR SPECIAL DAMAGES, LOSSES OR EXPENSES (even if Excelsior had been advised of the possibility of such damages) arising from the sales contract or its performance or in connection with the use of; inability to use or repair of Excelsior's product for any purpose whatsoever. BUYER AGREES THAT ANY RECOVERY AGAINST EXCELSIOR SHALL NOT BE GREATER THAN THE PURCHASE PRICE PAID FOR THE PRODUCT AS TO WHICH SUCH CLAIM IS MADE. EXCELSIOR'S SELECTION TO ONE OF ITS ALTERNATWES (REPLACE OR REPAIR) SHALL BE BUYER'S EXCLUSIVE AND SOLE REMEDY. No person is authorized to modify or amend the written warranty, product claims and specifications or to bind the corporation to any term contrary to the terms herein.

Service performed by other than Excelsior or its authorized agents may, at the discretion of Excelsior, be cause to void this warranty. Excelsior's tubing sets are the only tubing products that may be used with the Pharm-Assist. If other sets are used, it may, at the discretion of Excelsior, be cause to void this warranty.

Pharm-Assist Automatic Labeler
Reference Sheets

(Use in conjunction with the LP 2824 Thermal Printer Quick Start Guide)

Contents:

1. Must Read the LP 2824 Thermal Printer Quick Start Guide

2. Installing Labels in the Printer

3. Quick Start for the Automatic Labeler

4. Correcting Label Jams in the Printer

5. Custom Label Procedure

6. Custom Label Examples

7. Drug Selection Listing

1. <u>Must Read the LP 2824 Thermal Printer Quick Start Guide</u>

2. <u>Installing Labels in the Printer</u>
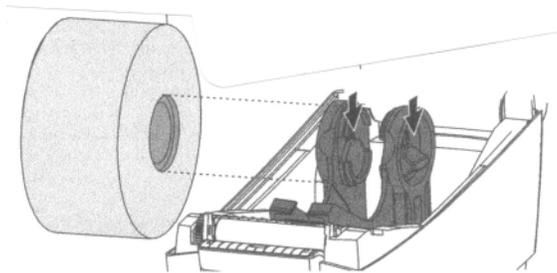
1.   **TURN OFF THE POWER** TO THE PRINTER.

2. <u>Load media.</u>
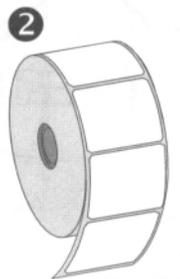
Open Cover
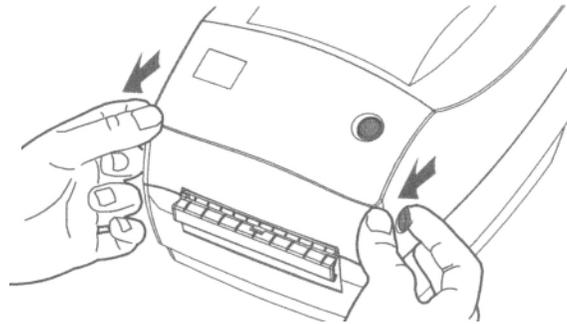
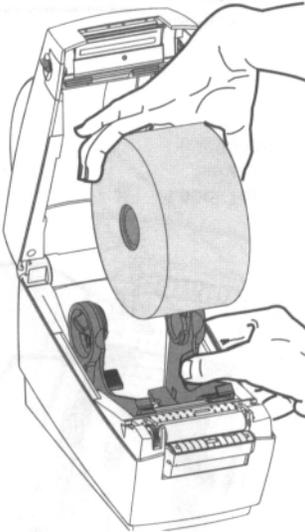Remove the remaining labels and its roller inside of the printer.
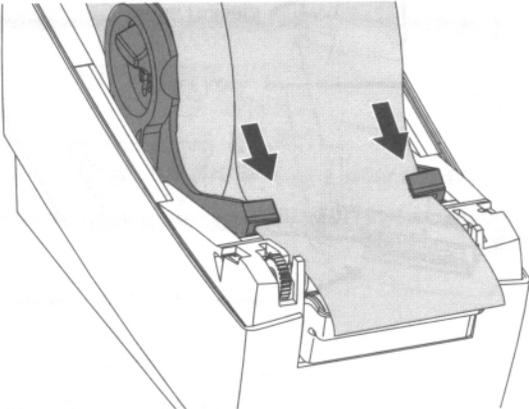
Adjust Holders

Sample Roll of Labels

Place Roll into Printer.

Thread Media through Guides.

Close Cover

3. <u>Quick Start for the Automatic Labeler</u>

1. **Plug in** the Pharm-Assist and the Thermal Printer.

2. Connect the RS-232 Serial Cable (Nine pins Sub-D connector at each end) into the back of the Pharm-Assist and Thermal Printer.

3. Turn on the Pharm-Assist and Thermal Printer.

4. Enter Label Mode of the Pharm-Assist by pressing 100 on the keypad followed by **RECALL MEMORY** key.

    The bottom line of the upper LCD display will prompt you to "SELECT DRUG". The lower LCD display will have a drug name.

5. **SELECT THE DRUG:**

    1. Enter the drug number (from the drug listing sheet) followed by **RECALL MEMORY** key or use the up and down arrows of the keypad to scroll through the drug choices

    2. Press the **VOLUME** key to enter the drug selection.

6. **ENTER THE DOSE:** The lower LCD display will have a default setting for the dose of the drug that you have just selected. If the dose is correct, press the **VOLUME** key. If the dose is incorrect, enter the correct dose by using the numeric keypad followed by the **VOLUME** key. <u>Note</u>: The default units of grams or milligrams cannot be changed.

7. **ENTER THE CONCENTRATION**: The lower LCD display will have a default setting for the concentration of the drug that you have just selected. If the concentration is correct, press the **VOLUME** key. If the concentration is incorrect, enter the correct concentration by using the numeric keypad followed by the **VOLUME** key.

8. **ENTER THE DATE:** Enter the date by using the numeric keypad followed by the **VOLUME** key. You can enter a slash to separate the numbers by using the **DECIMAL POINT** key on the numeric keypad.

9. **ENTER THE LOT NUMBER:** Enter up to a fourteen digit lot number by using the numeric keypad followed by the **VOLUME** key. Press the **DECIMAL POINT** key on the keypad to enter a "-" in the lot number.

10. **ENTER THE BARCODE:** Enter up to a fifteen digit barcode by using the numeric keypad followed by the **VOLUME** key. **Do not** place a **"-" in the barcode** by pressing the **DECIMAL POINT** key on the numeric keypad.

11. **ENTER THE NUMBER OF LABELS TO PRINT**: Enter the number of labels to print by using the numeric keypad followed by the **VOLUME** key.

12. **START THE PRINTING PROCESS:** Press the **START/STOP** key on the keypad.

NOTES:

    A. Each press of the **STORE MEMORY** key will return to the previous prompt in **LABEL MODE**.

    B. The **PUMP/DILUTE** key will escape from **LABEL MODE** back to the last set-up of the pump prior to entering LABEL MODE. This will maintain the calibration and other programmed settings of the pump.

        The Reset Button or the On/Off button of the pump will both put the pump into the Initial default settings, which occur when the pump is originally turned on. IF YOU SHUT OFF POWER OR RESET THE PUMP, THE CALIBRATION AND OTHER PROGRAMMED SETTINGS OF THE PUMP WILL BE RESET TO THE DEFAULT SETTINGS.

    C. The label printing may be stopped by turning off the printer.

4. <u>**Correcting Label Jams in the Printer**</u>

    CAUTION: TURN POWER OFF TO THE PRINTER BEFORE MAINTENANCE AND DO NOT UNDER ANY CIRCUMSTANCE, PLACE ANY SHARP, HARD OR ABRASIVE OBJECT SUCH AS A KNIFE OR SCREWDRIVER INTO THE PRINTER TO REMOVE A LABEL!!

1.   Open the printer cover which is located on top of the printer by sliding green Cover Release forward on each side of the printer to unlatch it and then tilt it upward to open.

2.   Carefully remove the jammed/stuck label(s) if possible and the roll of labels if needed.

3.   If needed follow the procedure for cleaning the thermal print head in LP2824 Thermal Printer Quick Start.

4.   If needed follow the procedure for cleaning the Platen in LP2824 Thermal Printer Quick Start.

    CAUTION: DO NOT USE ANY ABRASIVE MATERIAL; IT MAY DAMAGE THE PRINTING MECHANISM!!

5. <u>Custom Label Procedure</u>

1.   **ENTER CUSTOM LABEL MODE.** With the Pharm-Assist in the pumping mode (not the label mode) enter 1**,** 0, 1 followed by *RECALL MEMORY.*

2.   **SELECT a LABEL MEMORY LOCATION** by using the arrow keys to scroll through the label memory locations. To add a customized label, scroll to the first available "USER" label and press *ADJUST.* To edit an existing customized label, scroll to the desired custom label and press *AD.JUST*

      3.   **ENTER DRUG NAME (or one line message). The** letter 'A' will appear in the first column. Use the up and/or down arrows to change the "A" to the first character of the drug name. When the desired character is displayed, press *STORE MEMORY.* The display will now have the first selected character followed by an "A".

      Use the arrow keys to select the second character and press *STORE MEMORY.* Continue until the entire drug name is displayed. If the drug name is less than 16 characters, press *REGALL MEMORY* to eliminate the last undesired "A".

4.   **SELECT** DOSE UNITS by using the arrow keys to scroll through the dose units. When the desired unit is displayed, press *STORE MEMORY.* You will not be able to enter a dose in step *5* if you do not select dose units.

5.   ENTER **DOSE.** Type in the dose by using the numeric keypad followed by *STORE MEMORY.* You will not be able to enter a dose if you did not select dose units in Step 4.

6.   **SELECT** CONCENTRATION UNITS by using the arrow keys to scroll through the concentration units. When the desired concentration units are displayed, press *STORE MEMORY.* You will not be able to enter a concentration in step 7 if you do not select concentration units.

7.   ENTER CONCENTRATION. Type in the concentration by using the numeric keypad followed by *STORE MEMORY.* You will not be able to enter a concentration if you did not select concentration units in Step 6.

8.   **ENTER VOLUME.** Type in the volume, in milliliters, using the numeric keypad followed by *STORE MEMORY* **(If** you do not enter a volume, none will print). All volumes entered will print with "ml" units.

9.   **EXIT.** Press *PUMP DILUTE* at the" Select Label" prompt to return to pump mode.

    Note: Once a custom label is entered, it can be modified or eliminated by storing a different custom label at its memory location.

6. Custom Label Examples

You can create a wide variety of labels, with just a little planning. Here are three examples to get you started.

Example #1

"*** PHARMACY ***"

1. For the drug name enter: "***   PHARMACY"
2. For the dose units select: "***"
3. Select "   " for the concentration units.
4. Do not enter anything for the volume.
5. When printing if you do not enter a date, lot number, and bar codes only the one line with
*** PHARMACY *** will print.

Example #2

DRUG NAME EXP 5d
LOT# 123-456-789

12/27/09   10ML
||||||||||||||||||||||||||||||||||||||||||||||
987654321

1. For the drug name enter "DRUG_NAME___EXP".
2. For the dose units select "d".
3. For the dose enter *"5"*.
4. For concentration units select " "
5. For the volume enter "10".
6. When printing enter "12/27/09" for the date, "123-456-789" for the lot number, and "987654321" for the barcode.

Example #3

DRUG NAME IG
LOT# 12345
CONC: 99MG/ML
01/01/09   10ML
||||||||||||||||||||||||||||||||
67890

1. For the drug name enter "DRUG_NAME   1G".
   (The "1" will not print, but will display on the pump to identify the dosage.)
2. For the dose units select "G".
3. For the dose enter "1".
4. Select Conc. Units: "MG/ML".
5. For the Conc. Enter "99".
4. For the volume enter "10".
5. When printing enter a date of "01/01/09", a lot number of "12345", and a barcode of "67890".

Call Excelsior if you have any problems or questions.

7. Drug Listing for Zebra Printer

1. Refg. Exp. date/time
2. Amikacin 250mg
3. Amikacin 300mg
4. Amikacin 450mg
5. Amikacin 500mg
6. Ampicillin 250mg
7. Ampicillin 500mg
8. Ampicillin 1G
9. Ampicillin 1.5G
10. Ampicillin 2G
11. Amp. Sulbactam 1.5G
12. Amp. Sulbactam 3G
13. Azlocillin 2G
14. Azlocillin 3G
15. Azlocillin 4G
16. Aztreonam 500mg
17. Aztreonam 1G
18. Aztreonam 2G
19. Cefamandole 1G
20. Cefamandole 2G
21. Cefazolin 500mg
22. Cefazolin 1G
23. Cefazolin 1.5G
24. Cefazolin 2G
25. Cefepime 1G
26. Cefepime 2G
27. Cefmetazole 1G
28. Cefmetazole 2G
29. Cefonicid 1G
30. Cefonicid 2G
31. Cefoperazone 1G
32. Cefoperazone 2G
33. Cefotaxime 1G
34. Cefotaxime 2G
35. Cefotetan 1G
36. Cefotetan 2G
37. Cefoxitin 500mg
38. Cefoxitin 1G
39. Cefoxitin 2G
40. Ceftazidime 500mg
41. Ceftazidime 1G
42. Ceftazidime 2G
43. Ceftizoxime 1G
44. Ceftizoxime 2G
45. Ceftriaxone 500mg
46. Ceftriaxone 1G
47. Ceftriaxone 2G
48. Cefuroxime 750mg
49. Cefuroxime 1.5G
50. Cephalothin 1G
51. Cephalothin 2G
52. Cephapirin 1G
53. Cephapirin 2G
54. Chloramphenicol 1G
55. Cimetidine 300mg
56. Cimetidine 450mg
57. Clindamycin 300mg
58. Clindamycin 600mg
59. Clindamycin 900mg
60. Cloxacillin 1G
61. Cloxacillin 2G
62. Dilantin 100mg
63. Dilantin 300mg
64. Dilantin 500mg
65. Doxycycline 100mg
66. Erythromycin 500mg
67. Erythromycin 1G
68. Ethacrynate 50mg
69. Famotidine 20mg
70. Furosemide 40mg
71. Furosemide 1G
72. Gentamicin 40mg
73. Gentamicin 50mg
74. Gentamicin 60mg
75. Gentamicin 70mg
76. Gentamicin 80mg
77. Gentamicin 90mg
78. Gentamicin 100mg
79. Gentamicin 120mg
80. Gentamicin 140mg
81. Gentamicin 160mg
82. Gentamicin 180mg
83. Methyldopa 250mg
84. Methyldopa 500mg
85. Metoclopramide 5mg
86. Metoclopramide 10mg
87. Metoclopramide 20mg
88. Metoclopramide 30mg
89. Metoclopramide 50mg
90. Mezlocillin 1G
91. Mezlocillin 2G
92. Mezlocillin 3G
93. Mezlocillin 4G
94. Nafcillin 1G
95. Oxacillin 1G
96. Oxacillin 2G
97. Penicillin G 0.5 MU
98. Penicillin G 1 MU
99. Penicillin G 1.5 MU
100. Penicillin G 2 MU
101. Penicillin G 2.5 MU
102. Primaxin 250mg
103. Primaxin 500mg
104. Ranitidine 50mg
105. Ticarcillin 1.5G
106. Ticarcillin 3G
107. Timentin 3.1G
108. Tobramycin 40mg
109. Tobramycin 50mg
110. Tobramycin 60mg
111. Tobramycin 70mg
112. Tobramycin 80mg
113. Tobramycin 90mg
114. Tobramycin 100mg
115. Tobramycin 120mg
116. Tobramycin 140mg
117. Tobramycin 160mg
118. Vancomycin 500mg
119. Vancomycin 1G
120. Zefazone 1G
121. Zefazone 2G
122. Zofran 8mg
123. Zofran 10mg
124. Zofran 12mg
125. Zosyn 4.5G
126. Zosyn 2.25G
127. Zosyn 3.375G
128. Normal Saline 3mL
129. Normal Saline 5mL
130. Normal Saline 10mL
131. Sterile Water
132. Anectine
133. Atropine
134. Brevital-SW
135. Curare
136. Ephedrine-NS
137. Heparin Flush
138. Morphine-PCA
139. Pentothal
140. Prostigmine
141. Recombivax
142. Robinul
143. Versed (5 mg/mL)
144. Versed (1 mg/mL)
145. *** STAT ***
146. *** REFRIGERATE***
147. *** DO NOT SHAKE**
148. USE NORMAL SPEED
149. USE SLOW SPEED
150. USE X-SLOW SPEED
151. CENTRAL LINE ONLY
152. INFUSE > 60 MIN
153. USER_A *
154. USER_B *
155. USER_C *
156. USER_D *
157. USER_E *
158. USER_F *
159. USER_G *
160. USER_H *
161. USER_I *
162. USER_J *
163. USER_K *
164. USER_L *
165. USER_M *
166. USER_N *
167. USER_O *