

# SENTINEL® ENTERAL FEEDING PUMP USER TRAINING PACKET

**ALCOR®** ENTERAL FEEDING SYSTEMS  
*from* **AMSINO**



**AMSINO**

Advancing Healthcare Worldwide®

## TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
I. Sentinel® Enteral Feeding Pump In-service Video DVD (inside front cover of binder) .....	3
II. Sentinel Enteral Feeding Pump and Sets – Safety Features & Benefits .....	4
III. Pump Components (Front & back photos with parts labeled) .....	5
IV. Set Installation .....	6
V. Pump Programming Step by Step Programming Guide .....	7-10
Programming Quick Reference (back pocket of binder)	
VI. Troubleshooting Guide .....	11
VII. Proficiency Test .....	12
VIII. Frequently Asked Questions .....	13
IX. Key Contacts (for technical questions, customer service, etc.)....	14
X. Support Materials ALCOR®/AMSure® Enteral Feeding Systems sell sheet Sentinel Enteral Feeding Pump Operating Manual ALCOR AMSure Enteral sets IFUs Set Spike/Container Compatibility Guide Enteral Set Cross Reference	

**SECTION I: *SENTINEL® ENTERAL FEEDING PUMP IN-SERVICE VIDEO (DVD)***

## SECTION II: *SENTINEL® PUMP AND SETS KEY FEATURES & BENEFITS*



### Pump

- Large, dual display shows infusion rate and volume delivered simultaneously
- Patented drop detection technology minimizes nuisance alarms
- Advanced memory keeps settings until manually erased
- Clear audible & visual alarms
- Easy to use
  1. Press ON to turn on pump
  2. UP or DOWN to set infusion rate
  3. Press RUN to begin feeding

### Sets



- New ENFit connector does not allow connectivity with any non-enteral connectors
- Purple anti-IV spikes compatible with Abbott & Nestle safety ports\*
- IV warning tag
- Latex-free

\* See Set Spike/Container Compatibility Guide (at back of manual)

### ALCOR® AMSure® Enteral Feeding Pump Sets

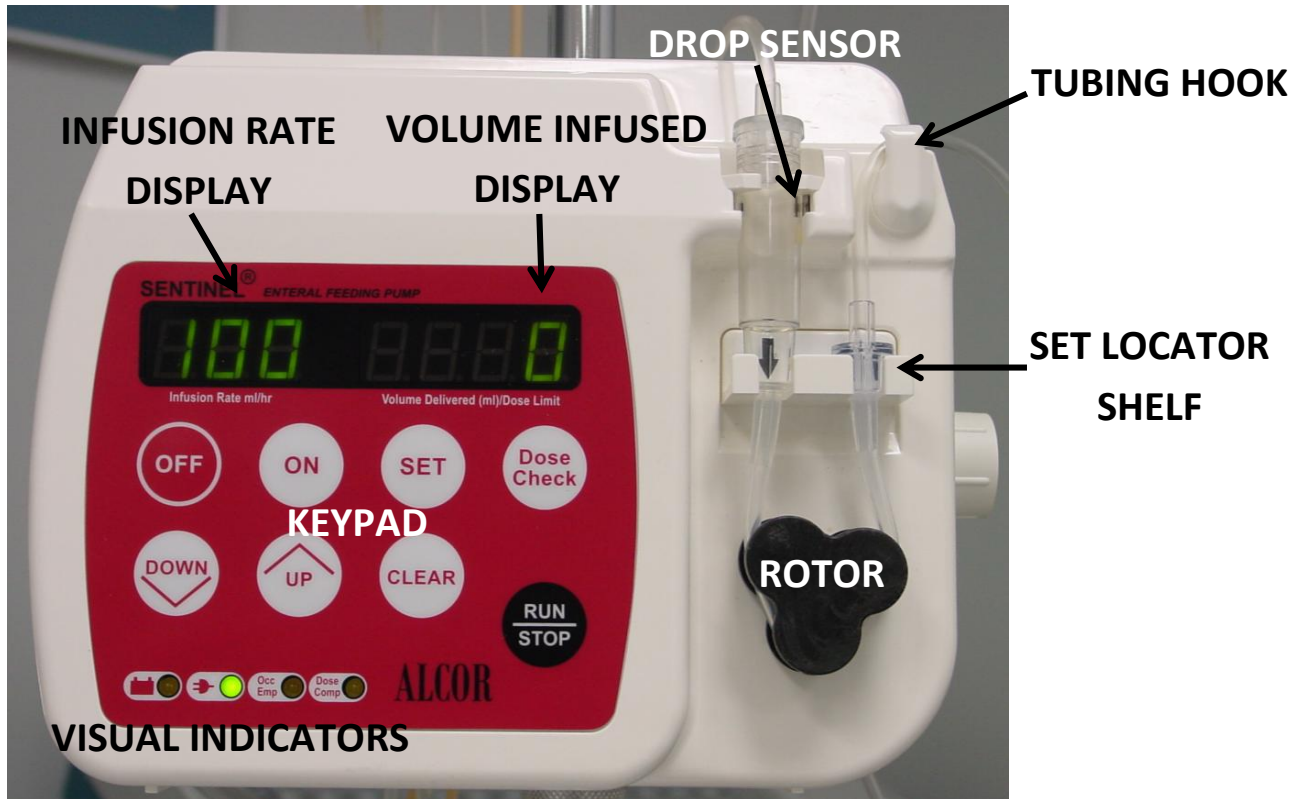
ENF1004K	Spike Set with ENFit connector & transition connector	ENF1200K	1200 mL bag pump set with ENFit connector & transition connector
ENF500K	500 mL bag pump set with ENFit connector & transition connector		

#### Also available:

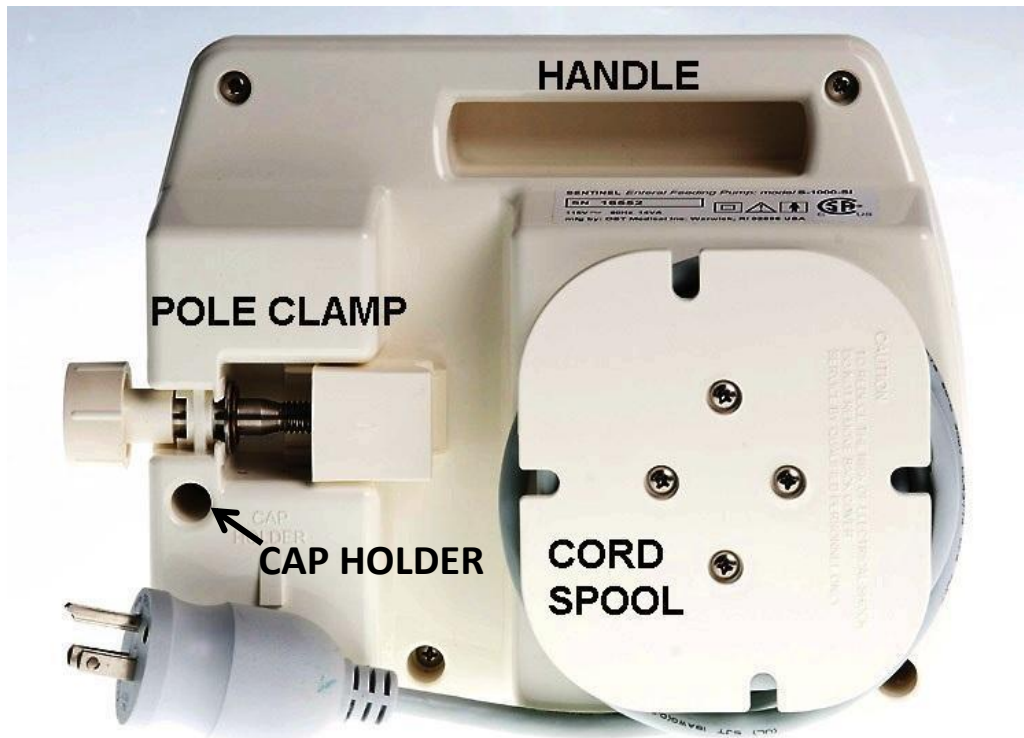
- ENFit Gravity Sets
- Full line of irrigation syringes, kits & trays – flat top and thumb ring piston

**SECTION III: PUMP COMPONENTS**

**Front**



**Back**



## SECTION IV: SET INSTALLATION



1. Close roller clamp and insert and seat drip chamber.
2. Open roller clamp and expel air from tubing.
3. Close roller clamp.



4. Pull tubing under rotor.



7. Seat tube adapter into locator shelf.



5. Wrap tubing behind tubing retainer.
6. Open roller clamp.

# SENTINEL<sup>®</sup> ENTERAL FEEDING PUMP

## Programming Guide



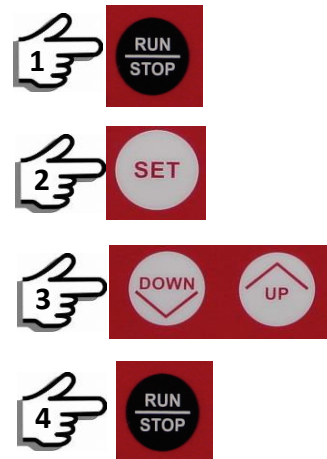
- *Refer to Operating Manual for detailed instructions*
- *See also Programming Directions on the pump*

## Set Infusion Rate (Left Display)



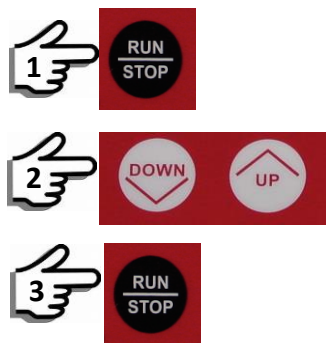
1. Press ON. Alarm will sound. Right display will flash.
2. Press UP or DOWN until desired infusion rate is displayed on left.
3. Press RUN/STOP to begin feeding.

## Set Dose Limit (Right Display)



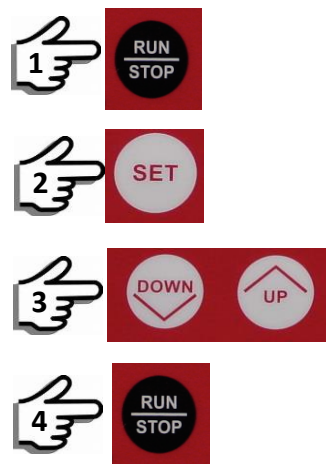
1. Press RUN/STOP. Right display will flash.
2. Press SET. dos Set will display on left.
3. Press UP or DOWN until desired dose limit is displayed on right.
4. Wait 5 seconds - Press RUN/STOP to resume feeding.

## Adjust Infusion Rate (Left Display)



1. Press RUN/STOP. Right display will flash.
2. Press UP or DOWN until desired infusion rate is displayed on left.
3. Press RUN/STOP to resume feeding.

## Adjust Dose Limit (Right Display)



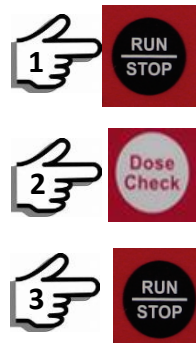
1. Press RUN/STOP. Right display will flash.
2. Press SET. dos Set will display on left.
3. Press UP or DOWN until desired dose limit is displayed on right.
4. Wait 5 seconds - Press RUN/STOP to resume feeding.

## Check Dose Limit (Right Display)



1. Press RUN/STOP. Right display will flash.
2. Press SET. Dose Limit will display on right.
3. Wait 5 seconds - Press RUN/STOP to resume feeding.

## Check Accumulated Volume Delivered (Right Display)



1. Press RUN/STOP. Right display will flash.
2. Press DOSE CHECK. tot will display on left. Accumulated volume delivered will display on right.
3. Wait 5 seconds - Press RUN/STOP to resume feeding.



## Reset Volume Delivered (current dose) to Zero



1. Press RUN/STOP. Right display will flash.



2. Press CLEAR. Hold for 3 beeps. Right display will reset to zero.



3. Press RUN/STOP to resume feeding.

## Reset Volume Delivered (current dose) & Dose Limit to Zero & Infusion Rate to 5



1. Press RUN/STOP. Right display will flash.



2. Press CLEAR. Hold for 7 beeps. Left display will reset to 5, right display will reset to zero.



3. Press RUN/STOP to resume feeding.

## Reset Accumulated Volume Delivered to Zero



1. Press RUN/STOP. Right display will flash.



2. Press DOSE CHECK. tot will display on left. Accumulated volume delivered will display on right.



3. Press CLEAR. Hold for 3 beeps. Right display will reset to zero.



4. Wait 5 seconds - Press RUN/STOP to resume feeding.

## Change Display Brightness



1. Press RUN/STOP. Right display will flash.

## SIMULTANEOUSLY PRESS



*Hold for 5 seconds*

## Change Alarm Volume



1. Press RUN/STOP. Right display will flash.

## SIMULTANEOUSLY PRESS



*Hold for 5 seconds*

## Lock/Unlock Keypad

*While pump is running*

## SIMULTANEOUSLY PRESS



## ALARMS & INDICATORS

**OCC/EMP** → Pathway occluded  
→ Container empty  
→ Drip chamber improperly installed, or  
→ Pump inactive for over 2½ minutes

**DOSE COMP** → Dose limit has been reached.  
*(4 beeps, flashing indicator, 2½ minute repeats)*

**FLO FAST** → Tubing not on rotor, or  
Drop sensor blocked over 6 seconds.  
*(Loud 3 tone beep)*

**LOW BAT** → Low battery. Plug into AC outlet

## To Reset Alarms



1. Press RUN/STOP



2. Correct alarm condition



3. Press RUN/STOP to resume feeding

## SECTION VI: *TROUBLESHOOTING GUIDE*

SITUATION	POSSIBLE CAUSE	SOLUTIONS
Battery light flashes. After 15 minutes, pump stops, displays flash, & alarm beeps.	Battery charge level is low.	Plug cord into AC outlet for 10 hours for full recharge.
OCC/EMP alarm activates. Pump stops, alarm sounds, displays flash.	<ol style="list-style-type: none"> <li>1. Container is empty.</li> <li>2. Occlusion is restricting flow</li> <li>3. Drip chamber not properly placed in locator shelf; drops not being sensed</li> <li>4. Pump is on standby (STOP) more than 2 ½ minutes.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace or refill.</li> <li>2. Find point of occlusion: kinked tubing or closed roller clamp in pump set; feeding tube; container.</li> <li>3. Place properly.</li> <li>4. Press RUN/STOP or OFF</li> </ol>
Alarm sounds when attempting rate change. Pump does not stop.	UP, DOWN, or CLEAR will only work when pump has been stopped.	Press RUN/STOP once. Change rate. Press RUN/STOP again to restart.
DOSE COMP alarm sounds. Displays flash.	Pump has delivered set dose.	<p>Increase dose limit. Press RUN/STOP. Pump will run until dose is complete again.</p> <p>If feeding has been completed, press RUN/STOP then OFF. If feeding incomplete, set the dose limit to zero.</p>
FLO FAST alarm sounds. Displays flash.	<ol style="list-style-type: none"> <li>1. Pump set is dislodged. Tubing is off the rotor.</li> <li>2. Drop sensor blocked due to formula on drip chamber walls.</li> <li>3. Drop sensor blocked due to overfilled drip chamber.</li> </ol>	<ol style="list-style-type: none"> <li>1. Stop excess flow. Check set placement on rotor. Restart pump.</li> <li>2. Clear drip chamber or replace pump set.</li> <li>3. Invert and reinstall drip chamber</li> </ol>

**SECTION VII: PROFICIENCY TEST**

**SENTINEL® ENTERAL FEEDING PUMP PROFICIENCY TEST**

NAME \_\_\_\_\_ DATE \_\_\_\_\_

FACILITY \_\_\_\_\_

CITY, STATE \_\_\_\_\_

**PART A: DEMONSTRATE THESE PUMP/SET SETUP STEPS**

<b>(initial)</b>	<b>Task</b>	<b>Satisfactory Completion</b>
	1. Load the set into the pump and prime the line	_____
	2. Set the infusion rate at 50 mL/hour and the dose at 450 mL	_____
	3. View total accumulated volume then reset it to 0	_____
	4. Change infusion rate to 75 mL/hour and the dose to 750 mL	_____
	5. Clear the volume delivered and dose limit, and reset infusion rate to 5	_____

**PART B: ANSWER THESE QUESTIONS**

1. Why do the ALCOR® *AMSure*® Enteral Feeding Sets have ENFit connectors?  
\_\_\_\_\_

2. Can a non- ALCOR *AMSure* set be used on the pump? [Circle either YES or NO]

3. Name 3 things that the “OCC/EMP” alarm could indicate.  
\_\_\_\_\_  
\_\_\_\_\_

4. What is the alarm that signals the dose limit has been reached?  
\_\_\_\_\_

5. What steps can you take to resolve an excess flow (“FLO FAST” alarm), if it occurs?  
\_\_\_\_\_  
\_\_\_\_\_

**Trainer/Facility Manager Signature of Successful Completion**

\_\_\_\_\_

## SECTION VIII: *FREQUENTLY ASKED QUESTIONS*

### 1. How can I clean the Sentinel® Enteral Feeding Pump?

Clean the pump housing with warm soapy water and a damp cloth or sponge. Clean the drop sensor parts with soft cotton swabs dipped in isopropyl alcohol. Do not use cleaners that will degrade polycarbonate.

### 2. What are the minimum and maximum flow rates?

5 – 295 mL/hr in 1 mL increments.

### 3. What is the dose accuracy?

+/- 10% of selected flow rate with ALCOR® *AMSure*® sets.

### 4. What are the dimensions of the pump?

H: 19 cm (7.48 inches)

W: 23 cm (9.06 inches)

D: 13 cm (5.12 inches)

### 5. What is the weight of the pump?

2.45 kg (5.4 lbs)

### 6. Can I use a non- ALCOR *AMSure* set on the pump?

No. To assure patient safety and accuracy of the pump delivery only a validated ALCOR *AMSure* set can be used on the Sentinel Enteral Feeding pump.

### 7. Does the pump retain its memory in a power failure or when the unit is turned off?

Yes

### 8. Can I infuse water with the Sentinel pump?

Yes. The Sentinel Enteral Feeding Pump is designed to work with all liquid nutrition formulas and water. It has a patented system to recognize fluid drops and to minimize false alarms caused by soiled drip chambers.

### 9. What is the battery life of the pump?

6 hours minimum at 125 mL/hr

### 10. Is there a pause button on the pump?

To pause the pump, simply press RUN/STOP button and the pump will notify you every 2 ½ minutes that it is not running.

### 11. Why do the ALCOR *AMSure* Enteral Feeding Sets have ENFit connectors?

This is designed to help prevent the set from inadvertently being connected to non-enteral connectors.

### 12. When a programmed dose limit is reached, how many beeps does the pump alarm signal?

The alarm will signal 4 beeps and the indicator will flash “DOSE COMP. This repeats every 2½ minutes

**SECTION IX: *KEY CONTACTS***

Orders/Customer Service .....	Amsino (800) 632-6746
Sets Technical Information .....	Amsino (800) 632-6746
Pump Technical Information .....	ALCOR Scientific (800) 495-5270
Warranty/Repair .....	ALCOR Scientific (800) 495-5270

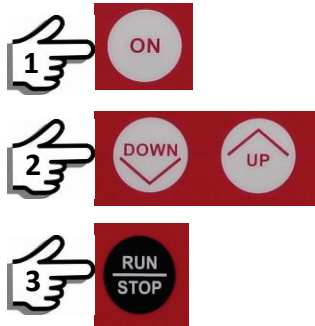
# Sentinel® Enteral Feeding Pump Quick Reference

Refer to Operating Manual for detailed instructions

See also Programming Directions on the pump

## Set Infusion Rate

(Left Display)



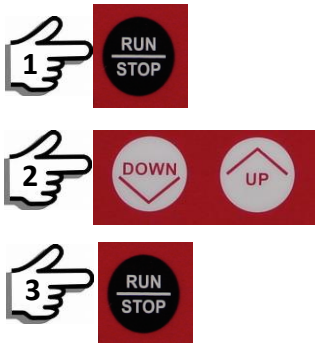
## Set Dose Limit

(Right Display)



## Adjust Infusion Rate

(Left Display)



## Adjust Dose Limit

(Right Display)



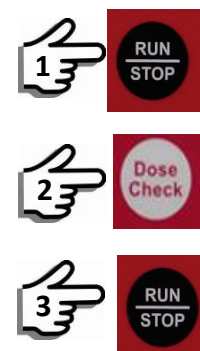
## Check Dose Limit

(Right Display)



## Check Accumulated Volume

Delivered (Right Display)



# Sentinel® Enteral Feeding Pump Quick Reference

Refer to Operating Manual for detailed instructions

See also Programming Directions on the pump

## Reset Volume Delivered (current dose) to Zero



*Hold for 3 beeps*



## Reset Volume Delivered (current dose) & Dose Limit to Zero & Infusion Rate to 5



*Hold for 7 beeps*



## Reset Accumulated Volume Delivered to Zero



*Hold for 3 beeps*



## Alarms & Indicators

### OCC/EMP

- Pathway occluded
- Container empty
- Drip chamber improperly installed, or
- Pump inactive for over 2½ minutes

### DOSE COMP

- Dose limit has been reached.  
*(4 beeps, flashing indicator,  
2 ½ minute repeats)*

### FLO FAST

- Tubing not on rotor, or
- Drop sensor blocked over 6 seconds.  
*(Loud 3 tone beep)*

### LOW BAT

- Low battery. Plug into AC outlet

## Reset Alarms



Correct alarm condition

