MEDLINE

EntraFlo™
NUTRITION DELIVERY SYSTEM

INFUSION RATE
6 7
mL/hr

VOLUME DELIVERED / DOSE LIMIT
mL

SET DOSE LIMIT

RESET

O OFF

RUN ▸II PAUSE

BATTERY CHARGING

LOW BATTERY   BATTERY
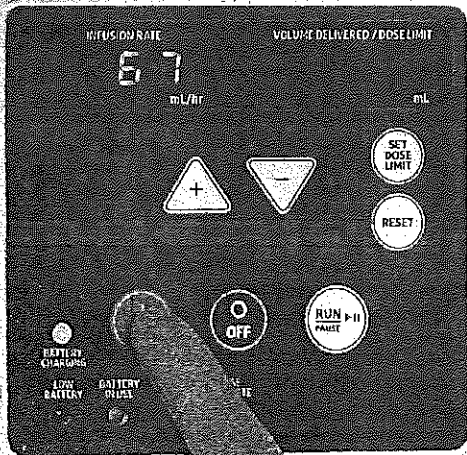
FEEDING YOUR ENTERAL CARE NEEDS.

Form O

EntraFlo™ Nutrition Delivery Systems
Providing Accurate, Reliable Tube Feeding

7. Release the buttons
   a. Below is the information that will be shown:

RATE Display	VOLUME DELIVERED Display
4r	405

8. If pump RATE and VOLUME DELIVERED displays match the information shown in step 7.a., the pump has the Free Flow Alarm feature installed
9. Press and hold the OFF key to exit the Free Flow Alarm test mode

Symbols

Serial Numbers less than 700000

IPX1	Degree of Protection Provided by Enclosure
	Medical Electrical Equipment 1. Classified with respect to electrical shock, fire and mechanical hazards in accordance with UL60601-1 2. Classified with respect to electrical shock, fire, mechanical and other specified hazards in accordance with CAN/CSA C22.2 No.601.1

Serial Numbers 850000 or greater

□	Class II Equipment
IP21	Degree of Protection Provided by Enclosure
	Follow Instructions For Use
~	Alternating Current
I	ON (Power)
O	OFF (Power)
	Intertek ETL Classified for Medical Electrical Equipment to IEC 60601-1:2005, IEC 60601-1-11: 2010, CSA C22.2#60601-1:2008

All Serial Numbers

	Type BF Applied Part (Administration Sets)
	Year of Manufacture
⚠	Attention: Consult Accompanying Documents

	Transportation/Storage Temperature Limits
	Transportation/Storage Humidity Limits
	Manufacturer
	Non-Ionizing Electromagnetic Radiation

Controls

1. ON, Applies power to unit.
2. OFF, Turns power off except to battery charger.
3. ▲, Increases flow/infusion rate when pressed and held. Increases dose rate after SET DOSE LIMIT Key has been pressed.
4. ▼, Decreases flow/infusion rate when pressed and held. Decreases dose after SET DOSE LIMIT Key has been pressed.
5. RUN/PAUSE, Alternately starts and stops unit. Corrects alarm condition and restarts unit when pressed twice.
6. RESET, Resets volume delivered display to 0.
7. SET DOSE LIMIT, Allows dose to be set and displays the dose limit.
8. INFUSION RATE DISPLAY, Indicates delivery rate.
9. VOLUME DELIVERED DISPLAY, Constantly

indicates total volume delivered.
DOSE LIMIT DISPLAY, Indicates Dose Limit Volume set when SET DOSE LIMIT Key is pressed during operation.
ACCUMULATED VOLUME DISPLAY, indicates Accumulated Volume when SET DOSE LIMIT Key is pressed and held for more than five seconds.*
10. Rotary peristaltic pump mechanism
11. Power cord
12. Alarm volume control
13. Pole clamp
14. Directions
15. Cord wrap
16. Pump adapter bracket
17. Flow sensors and drip chamber guide.
18. Tubing guide

*with serial numbers greater than 400000

Controls 11; 12; 13; 15 are on the back of the pump
Control 14 is on the side panel

Operating Instructions

(see Diagrams on page iv)

DIAGRAM 1:
Activate pump; set desired flow rate.
DIAGRAM 2:
Insert pump set drip chamber. Make sure set is properly seated on pump.
DIAGRAM 3:
Assemble silicone tubing around rotor.

DIAGRAM 4:
Insert pump adapter into bracket.
DIAGRAM 5:
Place tubing into tubing guide.
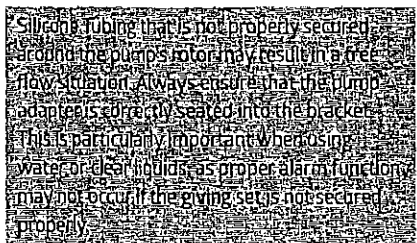
1. Plug the power cord into a 120 VAC., 60 Hz outlet. The internal backup battery should normally only be used for short term use when AC outlet power is unavailable.
2. Press ON - alarm will sound briefly. Remember, the pump has memory and will automatically recall the previous parameter settings. (DIAGRAM 1)
3. Check Flow/Infusion Rate. If change is desired, press ▲ or ▼ to change rate setting. (DIAGRAM 1)
4. Check Dose Limit by pressing SET DOSE LIMIT. If change is desired, press ▲ or ▼ within the next 3 seconds to change setting limit. Zero Dose Limit implies no dose limit monitoring by pump. (DIAGRAM 1)
5. Press RESET to clear Total Volume, if desired.
6. Insert drip chamber into drip chamber

brackets. (DIAGRAM 2)
7. Open roller clamp. Expel air from tubing. Close clamp.
8. Stretch silicone tubing around rotor. Be sure not to overstretch the silicone tubing. Insert pump adapter into bridge. (DIAGRAMS 3+4)
9. Place tubing into tubing guide. (DIAGRAM 5)
10. Attach pump set to patient's feeding tube.
11. Open roller clamp.
12. Press RUN/PAUSE to start pump.
13. OFF will turn off the pump at any time (Flow/Infusion Rate, Dose Limit, Volume* Delivered and Accumulated Volume are retained.)

*with serial numbers greater than 400000

How to Modify Pump Settings

To change rate or dose limit:

1. Press RUN/PAUSE to stop pump.
2. Select new Flow/Infusion Rate by pressing ▲ or ▼. Select new Dose Limit by pressing SET DOSE LIMIT and then press ▲ or ▼ within next 3 seconds. Press RESET to clear Volume Delivered, if desired. Press RUN/PAUSE to restart pump.

To view Set Dose Limit:
Press SET DOSE LIMIT. Dose Limit will be displayed for a few seconds.

To clear volume delivered:
1. Press RUN/PAUSE to stop pump.
2. Press RESET to clear Volume Delivered.
3. Press RUN/PAUSE to restart pump.

To view or clear accumulated volume:
1. Press RUN/PAUSE to stop pump.
2. Press and hold SET DOSE LIMIT for 5 seconds. Total VOL and accumulated volume will be displayed for 10 seconds.
3. To clear accumulated volume, press RESET within the 10 seconds.
4. Press RUN/PAUSE to restart pump.

To view or change dose complete alarm mode:
Three alarm modes are available when dose is complete:
· Mode 1 - Pump beeps then stops.
· Mode 2 - Pump beeps, stops and then beeps at 5 minute intervals.
· Mode 3 - Pump beeps continuously.

To select one of the desired modes:
1. Press △ and ▽ for 5 seconds. The infusion Rate and Volume Delivered Displays should show 888 and 8888 respectively.
2. Press △ and ▽ again. The Infusion Rate Display will show 012 and the Volume Delivered Display will show 3456.
3. Press △ and ▽ once again. The Infusion Rate Display will show the current alarm mode (1r, 2r or 3r) (Disregard the Volume Delivered Display).
4. Select desired mode by pressing △ or ▽.
5. Press RUN/PAUSE to save new alarm mode. **NOTE:** If RUN/PAUSE is not pressed, new

alarm mode will not be saved.
6. Turn pump off.
7. Pump is now set to operate in the new alarm mode.

Self Test

The major functions of the pump may be tested by pressing the ON button and then simultaneously holding the △ and ▽ keys for three seconds.

The volume delivered and rate displays should show all eights (8888) and the pump rotor should turn. To test the alarms, press SET DOSE LIMIT, △ , ▽, RESET or RUN/PAUSE.

When any of these keys are pressed or the flow sensors detect a drop, all alarm lights should light, the alarm should sound and the rotor will halt momentarily.

Any failure indicates a service check should be performed. See Service Section for instructions on reporting a pump in need of service.

Service

EntraFlo™ Nutrition Feeding Pumps are reliable medical electromechanical devices. As with any mechanical device, problems may occur. The following tips will help you correct the minor in-service problems that may arise. **Note:** Upon receipt of a new pump, plug it in for a minimum of 12 hours to charge the backup battery. For maximum battery life, charge the battery at least every 30 days, even if

the pump is not in use. Whenever the backup battery is used to power the pump, charge for 12 hours as soon as conveniently possible.

Troubleshooting Guide		
Situation	**Possible Cause**	**Solution**
BATTERY LIGHT is on	Pump is operating on battery power	Plug cord into AC outlet
LOW BATTERY alarm activated	Battery charge is below performance level	Plug cord into AC outlet
LOW BATTERY light is on	Battery life is fifteen minutes or less	Plug cord into AC outlet To avoid degrading the battery life keep battery charged If low battery persists then return pump for service
OCCLUSION/EMPTY alarm activated	Feeding container is empty	Replace or refill feeding container

	Occlusion is restricting flow	Identify point of occlusion
		- Pump set
		    · kinked tubing
		    · blocked tubing
		    · closed roller clamp
		- Feeding tube
		- Feeding container

	Set drip chamber not properly placed in pump	Assemble properly
	Pump is not in an upright/vertical - position or not clamped properly to the pole	Straighten the pump and clamp properly to the pole
	Pump is on hold for more than 2¼ minutes**	Press RUN/PAUSE button
	Bright light is reaching drop sensor	Turn pump so sensor is not in direct light
	Drip chamber walls are coated with formula or condensation	Manipulate chamber to clear drops in sensor path
	Drop sensor lenses in drip chamber guide are dirty	Clean with cotton swab dampened with isopropyl alcohol
	Drip chamber is overfilled	Replace with new Administration Set

Troubleshooting Guide		
Situation	**Possible Cause**	**Solution**
Free Flow ("FrE FLO") alarm activated*	Silicone tubing detached from pump rotor; formula is gravity flowing	Assemble silicone tubing properly around pump rotor and secure in pump adapter bracket and tubing guide per diagrams 3, 4, 5 on pages iv
	Drip chamber walls coated with formula or condensation in sensor path	Manipulate chamber to clear drops or condensation in sensor path
	Drip sensor is in direct path of intense light	Turn pump so sensor is not in direct sunlight
	Flow sensors need cleaning	Clean with cotton swab dampened with isopropyl alcohol
DOSE COMPLETE light is on and alert sounds	Pump has delivered preset volume	Press RESET. Press RUN/PAUSE. Pump will operate until dose is completed again
BATTERY CHARGING light is on	AC Power is available and the battery is in charging mode **Note:** Bat Charging light indicator only available on serial numbers greater than 850000	N/A
Audible Alert sounds when ▲, ▼ or RESET is pressed	When pump is running it is designed to give audible alert when one of these buttons is pressed	N/A

* For Model #199235 with serial numbers greater than 400000

** Model 199235 only

If the pump serial number is less than or equal to 400000 and the pump RUN/HOLD button is colored RED, refer to section titled Free Flow Alarm Confirmation Test to determine if the Free Flow Alarm has been installed on the pump.

Limited Warranty

Warranty. Company represents and warrants to Buyer that, as of the date of shipment by Company, each and every Product manufactured by Company: (i) is in accordance with the specifications and indications described in the labeling, and (ii) has been properly manufactured, branded, and labeled within the meaning of the US Federal Food, Drug and Cosmetic Act. Company's entire liability and Buyer's exclusive remedy for breach of any warranty shall be, at Company's option, to repair the Product, replace the Product, or provide a credit for the original purchase price. Descriptions or specifications appearing in Company's literature are meant to generally describe the Products and do not constitute any express warranties. The warranties stated herein shall be void and of no effect for any Product failure or deficiency caused by Buyer's shipment, handling, or improper storage; any alteration or modification of the Product; failure to use the Product in accordance with its directions, including use or distribution of the Product after its expiration date; neglect or misuse; or damages occurring after delivery of the Product.

Limitation of Warranty. THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS, IMPLIED, AND STATUTORY WARRANTIES WHATSOEVER, AND COMPANY EXPRESSLY DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY, NONINFRINGEMENT, AND FITNESS FOR A PARTICULAR PURPOSE. UNDER NO CIRCUMSTANCES SHALL COMPANY HAVE ANY OBLIGATION OR LIABILITY FOR ANY LOSS OF PROFIT OR FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL, PUNITIVE, OR CONTINGENT DAMAGES WHATSOEVER WITH RESPECT TO CLAIMS MADE HEREUNDER OR BY ANY CUSTOMER, CONSUMER OR OTHER USER OF COMPANY PRODUCTS. IN THE EVENT THAT ANY APPLICABLE LAWS IMPOSE WARRANTIES, CONDITIONS, OR OBLIGATIONS THAT CANNOT BE EXCLUDED OR MODIFIED, THIS PARAGRAPH SHALL APPLY TO THE GREATEST EXTENT ALLOWED BY SUCH LAWS.