

Compat[®]

ENTERAL DELIVERY SYSTEM

Operating Instructions

For Model Number:

199235 Enteral Delivery Pump with
Dose Limit and Memory





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Introduction

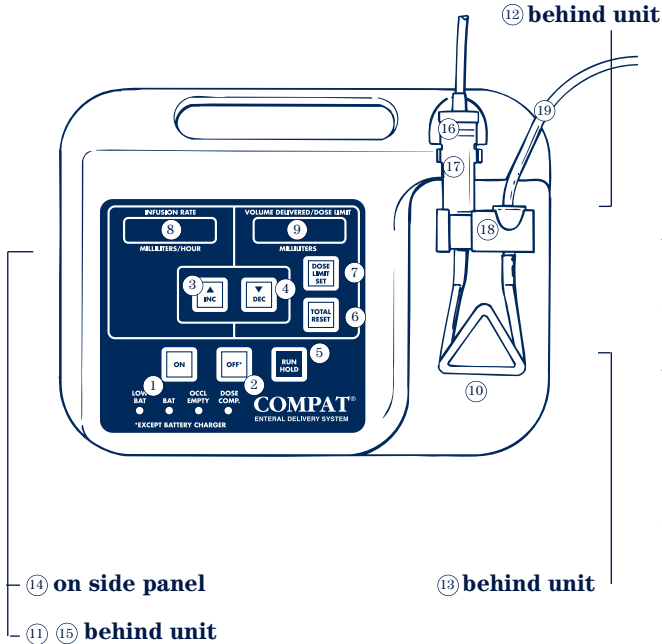
Upon receipt of a new pump, plug it in for a minimum of 12 hours to charge the backup battery. For maximum battery life, charge the battery at least every 30 days, even if the pump is not in use. Whenever the backup battery is used to power the pump, charge for 12 hours as soon as conveniently possible.

The COMPAT® Enteral Feeding Pump is an easy to use, versatile device for the administration of all enteral feeding solutions. Key features of this device include:

- *Ease of Use*
- *Versatility*
Rate adjustable in 1 mL/hr increments from 1–295. Dose adjustable in 5 mL increments from 0–9995.
- *Lightweight and Portable*
The internal battery will operate for 8 hours at 100 mL/hr.
- *Ease of Maintenance*
The fire resistant plastic case and sealed control panel prevent fluid leakage and allow cleaning with any mild soap.
- *Easily Understood Alarms*
Low Battery, Battery On, Dose Complete, and Occlusion/Empty for detecting empty container or occluded line.
- *2 1/2 minute Hold Alarm*
- *Low Occlusion Pressure*
15 p.s.i. occlusion allows for safe use with any enteral feeding tube.
- *Built-in Pole Clamp*
- *Total Volume Delivered Display*
- *Accumulated Volume Display**
- *Adjustable Alarm Volume*
- *Dose Limit for Intermittent Feedings* with 3 selectable alarm modes.*
- *Memory Retention of Infusion Rate, Dose Limit, Volume Delivered and Accumulated Volume* even after unit is turned off. Settings are automatically recalled when the pump is turned back on.
- *Serviceability*
Self-diagnostic mode allows for complete circuitry check with the push of 2 buttons.

Caution: Federal law restricts this device to sale by or on the order of a licensed healthcare practitioner.

* with serial numbers greater than 400000



1. ON, Applies power to unit.

2. OFF, Turns power off except to battery charger.

3. INC \blacktriangle , Increases flow rate when pressed and held. Increases dose rate after Dose Limit Set Key has been pressed.

4. DEC \blacktriangledown , Decreases flow rate when pressed and held. Decreases dose after Dose Limit Set Key has been pressed.

5. RUN/HOLD, Alternately starts and stops unit. Corrects alarm condition and restarts unit when pressed twice.

6. TOTAL RESET, Resets volume delivered display to 0.

7. DOSE LIMIT SET, 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 Dose Limit Set Key is pressed during operation.

ACCUMULATED VOLUME Display, Indicates Accumulated Volume when Dose Limit Set 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. Drip chamber bracket

17. Flow sensor and drip chamber guide

18. Pump adapter bracket

19. Tubing guide

* with serial numbers greater than 400000

Operating Instructions

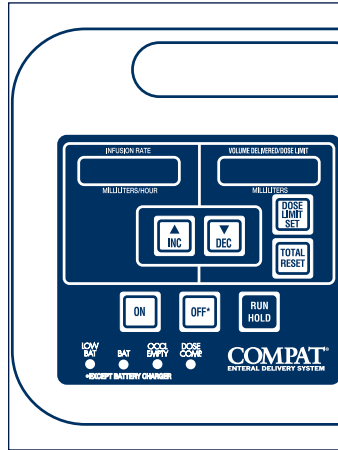


DIAGRAM 1: Activate pump;
set desired flow rate.

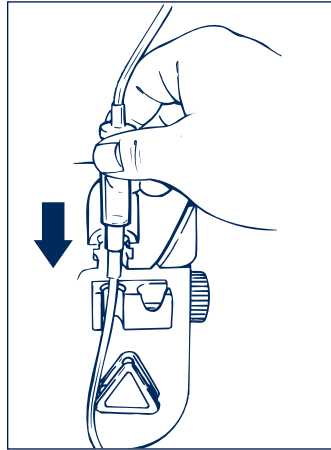


DIAGRAM 2: Insert pump
set drip chamber. Make sure
set is properly seated on pump.

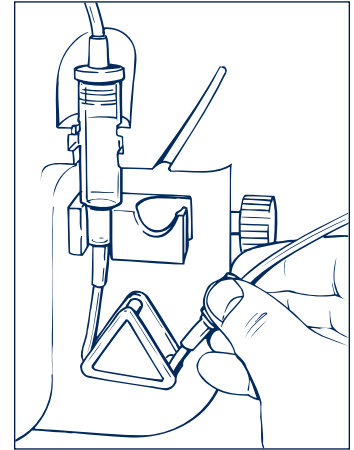


DIAGRAM 3: Assemble silicone
tubing around rotor.

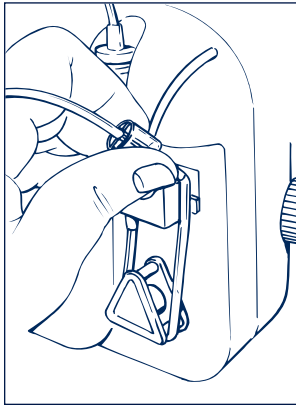


DIAGRAM 4: Insert pump adapter into bracket.

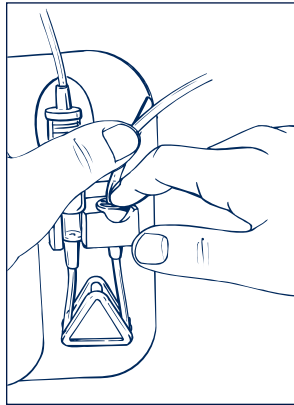


DIAGRAM 5: Place tubing into tubing guide.

1. Plug the power cord into a 120VAC., 60 Hz. three wire grounded outlet.
2. Press ON—alarm will sound briefly. Remember, the pump has memory and will automatically recall the previous parameter settings. (DIAGRAM 1)
3. Check Infusion Rate. If change is desired, press INC or DEC to change rate setting. (DIAGRAM 1)
4. Check Dose Limit by pressing DOSE LIMIT SET. If change is desired, press INC or DEC within the next 3 seconds to change setting limit. Zero Dose Limit implies no dose limit monitoring by pump. (DIAGRAM 1)
5. Press TOTAL RESET to clear Total Volume, if desired. (DIAGRAM 1)
6. Insert drip chamber into drip chamber bracket. (DIAGRAM 2)
7. Open roller clamp on set. Expel air from tubing. Close clamp.
8. Stretch silicone tubing around rotor. Insert pump adapter into bracket. (DIAGRAMS 3+4)
9. Place tubing into tubing guide. (DIAGRAM 5)
10. Attach pump set to patient's feeding tube.
11. Open roller clamp on set.
12. Press RUN/HOLD to start pump.
13. "OFF" will turn off the pump at any time. (Infusion Rate, Dose Limit, Volume Delivered and Accumulated Volume* are retained.)

* with serial numbers greater than 400000

*Operating Instructions (cont.)
How to Modify Pump Settings*

TO CHANGE RATE OR DOSE LIMIT:

1. Press RUN/HOLD to stop pump.
2. Select new Infusion Rate by pressing INC or DEC.
3. Select new Dose Limit by pressing DOSE LIMIT SET and then press INC or DEC within next 3 seconds.
4. Press TOTAL RESET to clear Volume Delivered, if desired.
5. Press RUN/HOLD to restart pump.

TO VIEW DOSE LIMIT SET, Press DOSE LIMIT SET. Dose Limit will be displayed for a few seconds.

TO CLEAR VOLUME DELIVERED:

1. Press RUN/HOLD to stop pump.
2. Press TOTAL RESET to clear Volume Delivered.
3. Press RUN/HOLD to restart pump.

TO VIEW OR CLEAR ACCUMULATED VOLUME:

1. Press RUN/HOLD to stop pump.
2. Press and hold DOSE LIMIT SET for 5 seconds: "tot VOL" and accumulated volume will be displayed for 10 seconds.
3. To clear accumulated volume, press TOTAL RESET within the 10 seconds.
4. Press RUN/HOLD to restart the 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 INC *and* DEC for 5 seconds. The Rate and Volume Delivered displays should show "888" and "8888" respectively.
2. Press and hold INC *and* DEC again. The rate display will show "012" and the Volume Delivered Display will show "3456."
3. Press and hold INC *and* DEC once again. The Rate display will show the current alarm mode (1r, 2r, or 3r.). (Disregard the Volume Delivered display.)
4. Select desired mode by pressing INC *or* DEC.
5. Press RUN/HOLD to save new alarm mode. (**Note: If RUN/HOLD 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.

Bat

The pump should be left plugged into AC outlet whenever practical. When operating on battery power, the indicator light is lit. No audible alarm will sound.

Low Bat

This light will come on fifteen minutes before the pump will cease operation due to a low battery condition; after 15 minutes, this light will flash and the audible alarm will sound.

The pump should be plugged into an AC outlet and normal feeding may continue whenever the LOW BAT light is on. It is important not to run down the battery to avoid degrading the battery life. **Battery is recharging anytime the pump is connected to an AC outlet regardless of whether the pump is on or off.**

Occl/Empty/Free Flow

When the pump is on, this alarm is activated under one of the following conditions:

1. Feeding container is empty.
 2. An occlusion has caused delivery to stop.
 3. The pump is left on hold for more than 2 1/2 minutes.
 4. Drip chamber is overfilled or dislodged.
 5. Drip chamber walls are coated with solution.
 6. Sensors in drip chamber bracket need cleaning.
 7. Drip chamber is improperly placed.
 8. Formula is free flowing.*
- Pressing the RUN/HOLD key after the alarm condition is corrected will cancel the alarm and return pump to hold mode.

Rate Change

The alarm will sound if INC, DEC or TOTAL RESET is pressed while the pump is running.

Hold

If pump is left on hold and RUN/HOLD is not pressed in 2 1/2 minutes, the occlusion/empty alarm will sound.

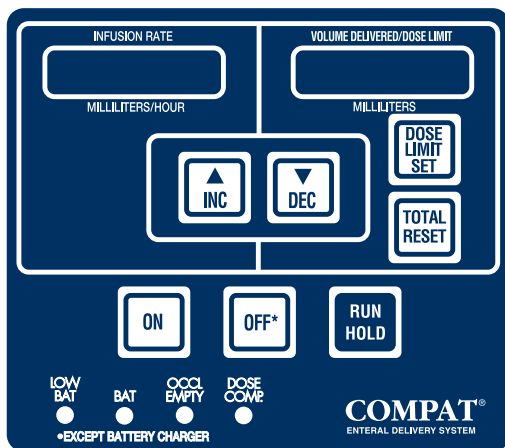
Dose Complete

When the pump has delivered the amount of fluid **equal** to the Dose Limit set by the operator, the pump will stop and beep twice. The Dose Complete light will come on. The Dose Complete alarm may be modified for 5 minute intervals (mode 2) or continuous beeps (mode 3), as described on the preceding page.*

Self Test

The major functions of the pump may be tested by pressing the ON button and then simultaneously holding the INC and DEC 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 DOSE SET, INC, DEC, TOTAL RESET or RUN/HOLD. 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.*

* with serial numbers greater than 400000



Specifications

TYPE OF DEVICE:	Volumetric enteral feeding pump
MECHANISM:	Rotary peristaltic
INFUSION RATE:	1–295 mL/hr in 1 mL increments
DOSE LIMIT:	0–9995 mL in 5 mL increments
ACCURACY:	±10% of selected flow rate
OCCLUSION PRESSURE:	Does not exceed 15 p.s.i.
BATTERY:	Sealed lead acid Rechargeable Automatically recharges when connected to an AC outlet Recharge time is 12 hours from complete discharge to full recharge Operating time is 8 hours at 100 mL/hr (Charge unit fully every 30 days)
DIMENSIONS:	7.4" High x 9.5" Wide x 5.3" Deep
WEIGHT:	5.7 Pounds
CASE MATERIAL:	Fire resistant plastic
POWER REQUIREMENT:	120V \sim , 187mA, 60Hz
OPERATING TEMPERATURE:	10°–40°C (50°–104°F) 75% R.H. non-condensing
STORAGE TEMPERATURE:	0°–50°C (32°–122°F) 95% R.H. non-condensing
TYPE OF PROTECTION AGAINST ELECTRICAL SHOCK:	Class 1, internally-powered equipment
DEGREE OF PROTECTION AGAINST ELECTRICAL SHOCK:	Type BF
DEGREE OF PROTECTION AGAINST INGRESS OF FLUIDS:	Ordinary equipment – IPX0

The following symbols may be found on the pump:



Refer to Accompanying Documents



Alternating Current



Type BF Protection (degree of protection against electrical shock—there is no conductive connection to the patient)



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

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, processed, blended, branded, and labeled within the meaning of the 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 UNDER THIS AGREEMENT 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.

COMPAT® Enteral Feeding Pumps are reliable electro-mechanical 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
• Low battery alarm activated	• Battery charge is below performance level	• Plug cord into AC outlet
• OCCL/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 2 1/2 minutes**	• Press RUN/HOLD button
• Free Flow (“FreE 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 3 and 4.
	• 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	• Either turn pump so sensor is not in direct light or use a “COMPAT® Shade”
	• Flow sensors need cleaning	• Clean with cotton swab dampened with isopropyl alcohol
• Dose complete	• Pump has delivered preset volume	• Press TOTAL, RESET. Press RUN/HOLD. Pump will operate until dose is completed again.

* with serial numbers greater than 400000

** model 199235 only

Factory Service

All service work should be performed by authorized personnel only. If the pump does not function properly:

- Contact your supplier of the COMPAT® Enteral Pump to arrange for pump return and replacement.
- If your pump was supplied directly from Nestlé HealthCare

Nutrition, contact your Nestlé HealthCare Nutrition Sales Representative or call Customer Service for instructions from anywhere in the U.S. and Canada at 1-877-338-4238 from 8:00 a.m. to 4:30 p.m. Central Standard Time.

- If it becomes necessary to return a pump for factory service, a replacement pump will be sent to you. Carefully pack the defective

pump in the carton the replacement pump arrived in and ship according to instructions given by the Nestlé HealthCare Nutrition Representative.

- Unauthorized repairs void warranty coverage (see section on limited warranty).

Cleaning

Caution: Always disconnect the pump from the AC outlet before cleaning to avoid electric shock hazard.

Using a cloth or sponge, clean the pump housing and rollers regularly with warm soapy water. (Prolonged exposure to alcohol, household detergents or strong cleaners can result in damage to pump housing.)

Clean drip sensors with cotton swabs and isopropyl alcohol.

Disinfecting:

If it is necessary to disinfect the entire pump, the following is recommended:

General disinfectants:

Cidex (Advanced Sterilization Products)

pHisohex (Winthrop-Breon Laboratories)

Hibiclens (Stuart Pharmaceuticals)

Isopropyl alcohol

AIDS and hepatitis disinfectants:

10% concentration of
5.25% sodium hypochlorite
(household bleach)

Tuberculosis disinfectants:

70% concentration of isopropyl alcohol

After application of these disinfecting agents, allow to air dry. It should be noted that these recommendations should not be substituted for official procedures that may differ among institutions. To determine the proper procedure in a particular institution, contact the Infection Control Department.

DO NOT AUTOCLAVE.

DO NOT IMMERSE PUMP IN CLEANING SOLUTIONS.

Safety and Warnings

Do not use this device near flammable anesthetics, possible explosion hazard.

This device is designed to minimize the effects of uncontrolled electromagnetic

interference and other types of interference from external sources. Avoid use of other equipment that may cause erratic operation or degradation in the performance of this device.

If the integrity of the external protective conductor in the installation is in doubt, equipment shall be operated from its internal electrical power source.

COMPAT® Enteral Delivery System

COMPAT® Pumps

- 199235 Enteral Delivery Pump with Dose Limit
- 199245 SelectFlo™ Portable Pump featuring Latched Door
- 199255 DualFlo™ Enteral Delivery Pump with Hydration Feature

COMPAT® Delivery Sets

Gravity Sets

- 199216 1000 mL Twist Cap Vinyl Bag with Gravity Set

For use with the 199235 and 199245 SelectFlo™ pumps

- 199507 Pump Set with in line “Y” Adapter and Piercing Spike
- 199547 Pump Set with in line “Y” Adapter and 1000 mL Vinyl Bag
- 199312 500 mL Baggle Semi-Rigid Container with Pump Set
- 199313 1000 mL Baggle Semi-Rigid Container with Pump Set

For use with the 199255 DualFlo™ pump

- 199407 DualFlo™ Piercing Spike and 1000 mL Water Vinyl Bag
- 199447 DualFlo™ 1000 mL Formula Vinyl Bag and 1000 mL Water Vinyl Bag

COMPAT® SelectFlo™ Accessories

- 199465 SelectFlo™ Transport Case
- 199466 SelectFlo™ 500 mL Baggle Cage

For More Information Call

Your Nestlé HealthCare Nutrition Sales Representative or Customer Service at 1-877-338-4238.



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