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Kangaroo™

KANGAROO OMNI™ Enteral Feeding Pump

Instructions for Use

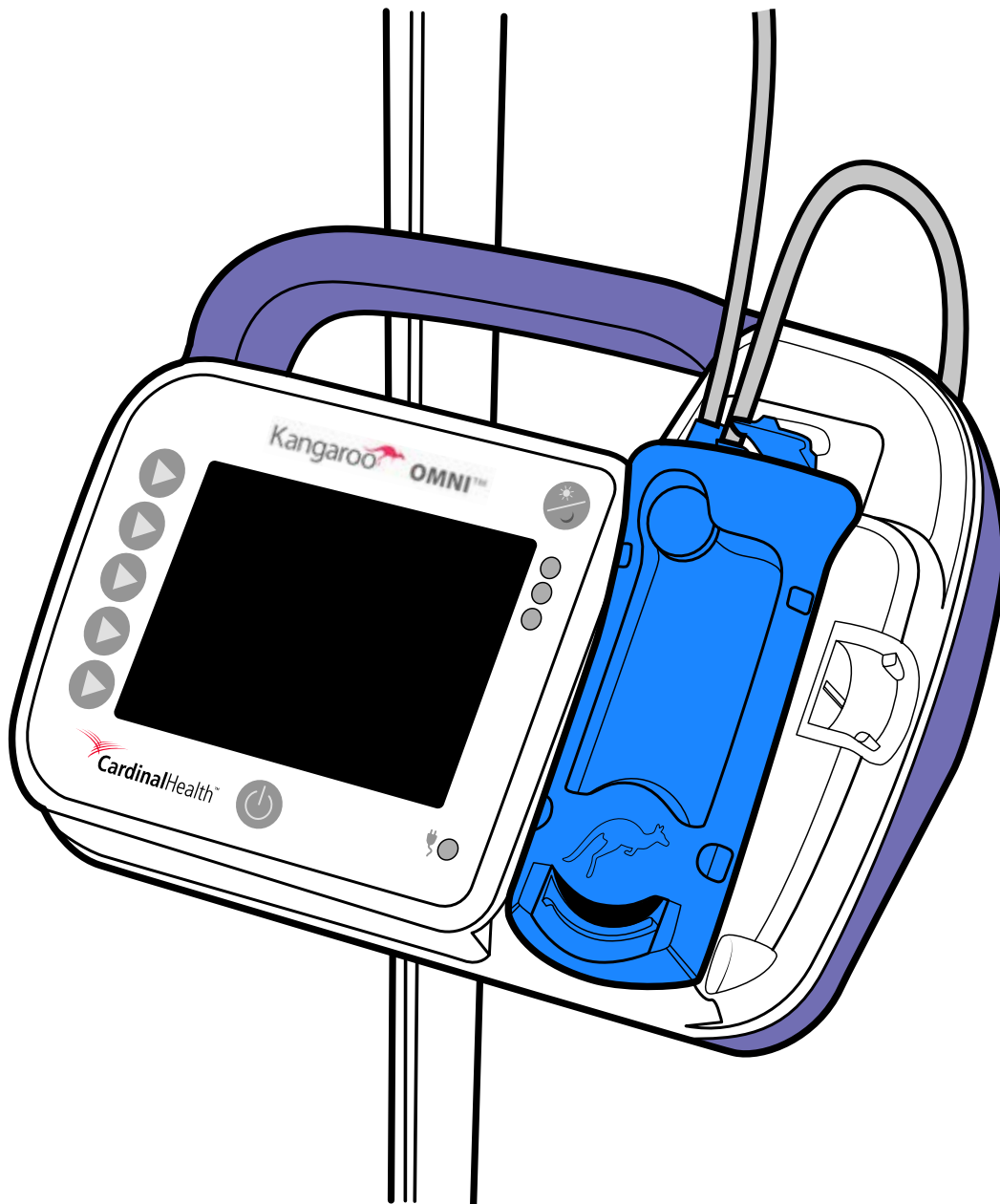


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Glossary

Definitions

Accuracy: The difference between the prescribed hourly feed rate and the amount of enteral fluids actually delivered.

Continuous Feeding: Feeding mode where a patient is fed continuously at a prescribed flow rate.

Enteral Fluids: Fluids like water and available formulas that are used for enteral nutrition administration via the human gastrointestinal tract.

Feed: A predetermined amount of enteral fluids delivered at a prescribed flow rate.

Flow Rate: The prescribed delivery rate (in mL/hr) of enteral fluids to a patient.

Hang Height: The distance from the top of the fluid in the Kangaroo OMNI™ Feeding Set bag (or container) to the top of Kangaroo OMNI™ Enteral Feeding Pump.

IDDSI: A global initiative, the International Dysphagia Diet Standardisation Initiative works to develop a standardized way of naming and describing texture modified foods and thickened liquids for people with dysphagia.

IDDSI Framework: Provides a common terminology to describe fluid thickness and food texture. The framework consists of 8 levels (0-7), where fluids are measured from Levels 0 – 4, and foods are measured from Levels 3 – 7.

Procedure to determine IDDSI thickness please reference <https://www.iddsi.org/framework>

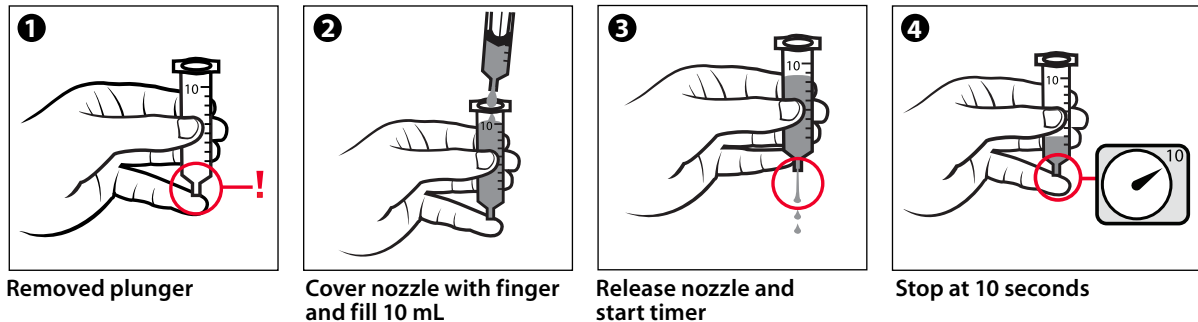
The IDDSI Framework

Providing a common terminology for describing food textures and drink thicknesses to improve safety for individuals with swallowing difficulties.

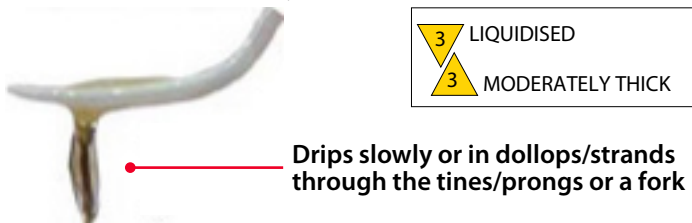


© The International Dysphagia Diet Standardisation Initiative 2019 @ <https://iddsi.org/framework/> Licensed under the Creative Commons Attribution Sharealike 4.0 License <https://creativecommons.org/licenses/by-sa/4.0/legalcode>. Derivative works extending beyond language translation are NOT PERMITTED.

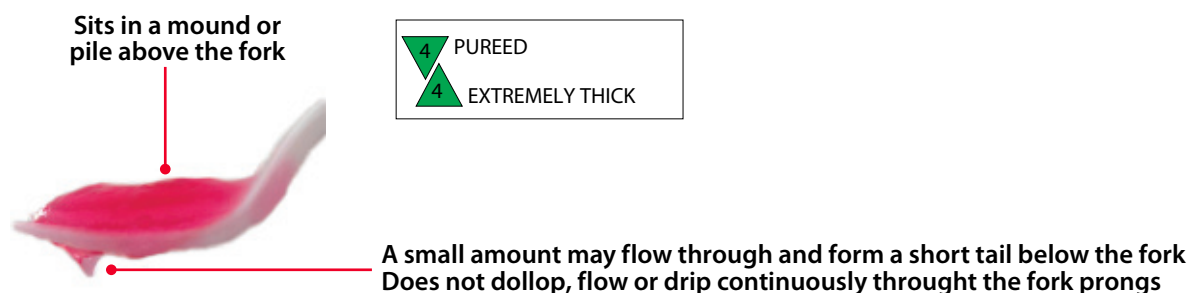
IDDSI Flow Test Instructions



Images for Level 3 - Liquidised/Moderately Thick are shown below.



Images for Level 4 - Purred/Extremely Thick are shown below.



Intermittent Feeding: Feeding mode where a patient is fed a predetermined amount of enteral fluids at a prescribed flow rate over specified intervals throughout the day.

Rotor: The black circular wheel on Kangaroo OMNI™ Enteral Feeding Pump that rotates to push fluid through the Kangaroo OMNI™ Feeding Set.

Neonate: Birth through the first 28 days of life.

Infant: 29 days to less than or equal to 2 years.

Children/Adolescent: 2 years to less than 22 years.

Adult: 22 years and older.

Night Mode: Pump feature that reduces screen brightness by changing from full color display to black and amber.

Occlusion Pressure: The pressure that can be created in the Kangaroo OMNI™ Feeding Set when the tubing becomes blocked.

Occlusion Sensor: Area on the pump located just above the rotor. The sensor is used to determine fluid presence in the tubing and to detect blockages in the Kangaroo OMNI™ Feeding Set.

Priming: The act of completely filling the Kangaroo OMNI™ Feeding Set tube with enteral fluid prior to feeding.

Thick Formula: Enteral fluids of smooth consistency that would be categorized as level 2, 3, or 4 drinks within the IDDSI framework.

Standard Formula: Enteral fluids of smooth consistency that would be categorized as level 0-1 drinks within the IDDSI framework.

Timed Pause: A feature that effectively pauses the pump, but keeps the rotor turning very slowly.

Bolus Max: Pump feature that offers a rapid infusion delivery option that operates at a non-adjustable infusion rate of 800mL/hr. This feature is provided to allow clinicians the capability to prescribe rapid rate of infusion in the cases where it is desired.

Glossary

Symbols

SYMBOL	DEFINITION	SYMBOL	DEFINITION	SYMBOL	DEFINITION
	Non-Sterile		Keep dry		Authorized representative in the European Community
	Not made with natural rubber latex		China RoHS (reduction of hazardous substances)		Catalog number
	Federal (USA) law restricts Kangaroo OMNI™ Enteral Feeding Pump to sale by or on the order of a physician		Dispose of as Electrical and Electronic Waste		Manufacturer
	Not made with DEHP		UL recognized component certification symbol		Use by or expiration date
	Do not use if package is opened or damaged		Lithium-Ion Battery		Batch code
	Consult instructions for use		Caution for indoor use only		Serial number
	Caution, consult accompanying documents		Type BF applied part		Date of manufacture
	Follow instructions for use		Class II equipment		Power Symbol
	MR Unsafe (magnetic resonance)		Protection against fluid ingress: Drip-proof		Humidity limitation
	Flush / Feed		Water Jet resistant		Atmospheric pressure limitation
	Do not use for greater than 24 hours		Not water resistant		Medical Device
	Temperature limitation (storage)		Non-ionizing electromagnetic radiation		Single sterile barrier system with protective packaging outside
	Temperature limitation (between uses, up to 24 hours)		NRTL Mark		Do not resterilize
	Temperature limitation (operating)		CE Mark		Australian Regulatory Compliance Mark.
	Level of Efficiency for External Power Supplies		Single sterile barrier system		
	Hang height		Sterilized using ethylene oxide		
	Single patient multiple use		RoHS		

Introduction

Intended Purpose (Intended Use)

The Kangaroo OMNI™ Enteral Feeding Pump with Kangaroo OMNI™ Feeding Sets are intended for delivery of enteral fluids, including nutritional fluids and/or water to the gastrointestinal system via nasogastric, orogastric, nasojejunal, gastrostomy, and jejunostomy tubes. Not for use with neonates.

Indications for Use

The Kangaroo OMNI™ Enteral Feeding Pump with Kangaroo OMNI™ Feeding Sets are indicated for use in patients ages infant and older who are physically unable to eat and swallow or who are unable to get sufficient nutrition through eating and swallowing. The Kangaroo OMNI™ Enteral Feeding Pump and Feeding Set are intended to be used together as a system. Kangaroo OMNI™ Enteral Feeding Sets for administration of standard formula are able to be connected to access devices of all sizes that are ENFit™ compatible. The Kangaroo OMNI™ Thick Formula Feeding Sets for administration of thick formula can be used with access devices 8 Fr size or greater that are ENFit™ compatible.

Intended Patient Population

Any patients ages infant, child/adolescent and adult who are physically unable to eat and swallow or who are unable to get sufficient nutrition through eating and swallowing (see definitions under Glossary).

Intended Users/Use Setting

Kangaroo OMNI™ Enteral Feeding Pump and Kangaroo OMNI™ Feeding Set are intended to be used in hospital and acute care settings, as well as long term and home care settings by users ranging from clinicians to laypersons and patients. Some patients may need a caregiver to support using the device. The device is intended to be used in both stationary and ambulatory conditions including ground and air transport while using the backpack accessory.

Clinical Benefit

This device facilitates the programmable and controlled delivery of enteral nutrition and hydration in patients who have an intact gastrointestinal tract but are unable to meet nutrition needs via oral feeding. The device can administer thick formula.

Kangaroo OMNI™ System Description

The Kangaroo OMNI™ Enteral Feeding Pump is a portable, rotary peristaltic pump. It can be programmed to provide patients with continuous or intermittent feeding and/or hydration when used with Kangaroo OMNI™ Feeding Sets. The feeding pump and its standard accessories (Kangaroo™ Power Cord with Adapter, Kangaroo™ Non-adjustable Pole Clamp and feeding sets) are considered medical electrical equipment. The pump may also be used with additional optional accessories like the Kangaroo™ Adjustable Pole Clamp, or Kangaroo™ Backpacks. The pump used in conjunction with one or more of these optional accessories comprises the medical electrical equipment system. All components in the system are suitable for use within the patient environment.

Safety & Warnings

Note to healthcare personnel who provide training to non-clinician care providers and/or patients:

Since patients and caregivers are intended operators, be sure to include all of the **Warnings** below when providing training to lay users, especially in a Home Care Environment. Lay users should be instructed to contact Customer Service if there is a change in the performance of Kangaroo OMNI™ Enteral Feeding Pump. Additionally, lay users should be instructed on proper cleaning procedures to avoid hazards such as electric shock. Lay users should also be trained on inappropriate environments for use (e.g. bathtub). For guidance on training, please contact Customer Service.

When unpacking and installing the Kangaroo OMNI™ pump, accessories, and feeding sets, care should be taken to minimize the environmental impact of waste, especially when disposing of packaging materials. Make sure to follow local laws regarding disposal of packaging waste. Whenever possible, work to recycle cardboard, plastic, and paper products.

This enteral feeding pump contains a lithium-ion battery pack. When discarding the pump at the end of its useful life, remove the back label, unscrew the back housing from the pump, and unplug and remove the battery pack from the pump. Dispose/recycle the battery pack in accordance with local laws. Avoid discarding lithium-ion batteries in normal waste, as this may have environmental impacts. **Note:** Lithium-ion batteries contain stored energy that can pose risk during disassembly. To reduce risk, wait until the pump indicates a low battery condition before removing. Wear non-conductive gloves while handling. When removing the lithium-ion battery, **do not** puncture the cells or packaging. **Do not** burn discarded battery packs as this can result in explosion.

Introduction

This enteral feeding pump contains an electronic circuit board. When discarding the pump at the end of its useful life, it is recommended to remove the back label, unscrew the back housing from the pump, and remove the circuit board from the pump. Recycle if possible or dispose of the circuit board in accordance with local laws. Avoid discarding circuit boards in normal waste, as this may have environmental impacts. For more ideas on recycling, consider earth911.com or other recycling information sources.

During periods where the pump is not used for long durations of time, consider unplugging the power adaptor from the outlet. This conserves energy and reduces carbon footprint, while maximizing the life of the device.

General Warnings

Read this manual thoroughly before using Kangaroo OMNI™ Enteral Feeding Pump.

Warnings

1. **Strangulation Hazard. Do Not** leave tubing and cords where infants, children, or those deemed at high risk for medical line entanglement can become entangled. Be aware that if these items become wrapped around a patient's neck, there is an increased risk of strangulation or death. Caregivers of patients who are at risk for entanglement should discuss with their health care provider how to properly manage their lines and properly monitor patients based on their needs while in use.
2. **Explosion Hazard. Do Not** use Kangaroo OMNI™ Enteral Feeding Pump in the presence of flammable anesthetics. Flammable anesthetics can ignite due to a spark within the unit, which could result in fire or explosion.
3. **Free Flow Hazard. Only Use** Kangaroo OMNI™ Feeding Sets with Kangaroo OMNI™ Enteral Feeding Pump. Kangaroo OMNI™ Enteral Feeding Pump is designed to be incompatible with other feeding sets. Use of other feeding sets with Kangaroo OMNI™ Enteral Feeding Pump can create hazardous situations, including free-flow conditions that can result in underfeeding, overfeeding, enteral fluids in the lungs, and death to a patient. The Kangaroo OMNI™ Feeding sets are designed with a valve, which works to prevent free flow or over infusion when the set is removed from the pump.
4. **Not** for intravenous use. Do not use Kangaroo OMNI™ Enteral Feeding Pump for intravenous infusion into a patient. Intravenous infusion of enteral fluids can result in serious complications, up to and including death.
5. **Only** use Kangaroo OMNI™ Enteral Feeding Pump for patients who can tolerate the flow rates and accuracy of the Kangaroo OMNI™ Enteral Feeding Pump. Delivery of enteral fluids to patients who cannot tolerate Kangaroo OMNI™ Enteral Feeding Pump accuracy can result in under or over delivery with the possibility of aspiration.
6. The use of accessories not listed in this manual could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.
7. **Do Not** use non-prescribed feeding enteral fluids. Enteral fluids made in a blender present variability of unknown ingredients and inconsistency regarding the degree of mixing. The use of enteral fluids of smooth consistency that would be categorized as level 2, 3, or 4 drinks within the IDDSI framework is recommended. Ensure that enteral fluids are homogenous/smooth consistency when using a feeding pump.
8. **Do Not** use the Kangaroo OMNI™ Thick Formula Feeding Sets for administration of thick formula with access devices less than 8 Fr.
9. **Do Not** allow interconnection of other systems to the enteral feeding line. This could cause hazards that could lead to over infusion, under infusion, and aspiration.
10. **Always** prime the flush tube before the feed tube when using Kangaroo OMNI™ Feed Sets with Flush Bags. The Auto Prime feature of Kangaroo OMNI™ will manage this for you. Priming the flush tube after priming the feed tube will introduce air in the tubing after the feeding solution, which will require the feed tube to be primed again to remove the air.
11. **Do Not** clean Kangaroo OMNI™ Enteral Feeding Pump or accessories while these items are plugged into an electrical outlet.
12. **Do Not** modify Kangaroo OMNI™ Enteral Feeding Pump without authorization of the manufacturer. Modification of any devices or accessories can result in physical hazards including delayed therapy, under-delivery, over-delivery, electrocution, and fire. These hazards could result in patient injury or death.
13. **Do Not** use Kangaroo OMNI™ Enteral Feeding Pump with multiple socket-outlets or extension cords. The use of multiple socket-outlets or extension cords will compromise electrical safety and/or increase the risk of electrical shock.

14. **Do Not** use Kangaroo OMNI™ Enteral Feeding Pump adjacent to or stacked with other equipment because it could result in improper operation. If such use is necessary, Kangaroo OMNI™ Enteral Feeding Pump and the other equipment should be observed to verify that they are operating normally.
15. Always refer to the Pediatric section on page 8 for content specific to the pediatric patient population.
16. The High Priority (Critical) audible alarm volume for the pump can be adjusted by a pump user or operator. Since the alarm can be adjusted to a lower volume, there is a possibility that the auditory alarm signal volume can be set to less than the ambient noise levels in the room. In this case, the noise in the room can prevent or impede operator recognition of audible alarm signal conditions. Care should be taken to ensure that visual indicators can be seen by the operator at all times in these cases or the medical device volume should be raised in the settings to be above ambient noise conditions.

Cautions

1. Federal (USA) law restricts Kangaroo OMNI™ Enteral Feeding Pump for sale by or on the order of a physician.
2. **Do not** use Kangaroo OMNI™ Enteral Feeding Pump for delivery of any fluids or substances that are not enteral fluids prescribed by qualified medical personnel.
3. Formula type and route of administration to be determined by the clinician. It is recommended to administer thick formula into the stomach for optimal digestion. Enteral feeding using standard formulas and sets **do not** have a restriction on anatomical placement of the access device.
4. Use of available pre-packed or prepared enteral fluids prescribed by a health care provider is recommended. Use of homemade blenderized or liquidized foods, or non-commercially available feeding solutions may affect pump delivery accuracy. Some enteral formulas contain chunks, seeds, or lumps that may increase the risk of occlusion. Ensure that enteral fluids are homogenous/smooth consistency when using a feeding pump.
5. Use **caution** when administering thick formula in patients who cannot tolerate delivery of the prescribed volume within 10% accuracy. This includes, but is not limited to infants, critically ill patients or those who may experience a clinical impact due to underfeeding or overfeeding.
6. Use of thick formula feeding sets suggested for fluid levels categorized as IDDSI Level 2, 3, and 4 Drinks.
7. For use with the ENFit™ connection system. Kangaroo OMNI™ Feeding Set has the potential to misconnect with small bore connectors of other health care applications.
8. Kangaroo OMNI™ Feeding Sets contain fluid. Accidentally disconnecting the Kangaroo OMNI™ Feeding Set from the patient could result in a fluid leak leading to underfeeding and a potential slip hazard.
9. For optimal accuracy, the top of the starting volume of enteral fluids should be 10 inches above the top of Kangaroo OMNI™ Enteral Feeding Pump.
10. **Do not** reuse feeding sets for more than one patient.
11. Should Kangaroo OMNI™ Feeding Sets require rinsing, **do not** manually operate the anti-free flow valve to avoid damage. It is recommended that the Kangaroo OMNI™ Feeding Sets be rinsed using the Kangaroo OMNI™ Enteral Feeding Pump. To rinse the feed bag, fill with rinsing fluid. Load feeding set into Kangaroo OMNI™ pump and utilize the Kangaroo OMNI™ pump Manual Prime feature to complete rinsing of the tubing.
12. The Kangaroo OMNI™ Feeding Set should be replaced after 24 hours from initiation of feeding. This ensures that the Kangaroo OMNI™ Enteral Feeding Pump is operating within specified parameters and prevents bacterial growth that could be a hazard to the patient.
13. Used Kangaroo OMNI™ Feeding Sets should be disposed of in accordance with current facility procedures or local disposal guidelines. For disposal of Kangaroo OMNI™ Enteral Feeding Pump be sure to contact local authorities to determine the proper method of disposal of these items. Kangaroo OMNI™ Enteral Feeding Pump contains a rechargeable lithium-ion battery.
14. Kangaroo OMNI™ Enteral Feeding Pump is designed to be used outdoors for short periods of time (no more than 24 hours). Leaving these devices outdoors for extended periods of time (exceeding 24 hours) can result in damage and/or fading of materials.
15. Cleaning frequency and practices must be consistent with institutional policies for cleaning of non-sterile devices. See Cleaning section for instructions on cleaning Kangaroo OMNI™ Enteral Feeding Pump. Failure to clean in accordance with this manual could result in damage to or failure of Kangaroo OMNI™ Enteral Feeding Pump.
16. **Do not** store Kangaroo OMNI™ Enteral Feeding Pump, power adapter, at temperatures greater than 50°C (122°F). This can damage the equipment, which will prevent Kangaroo OMNI™ Enteral Feeding Pump from operating.

17. The power adapter cord, Kangaroo OMNI™ Feeding Set tubing, and Kangaroo OMNI™ Enteral Feeding Pump accessories may cause a tripping hazard. Avoid leaving wires, cords, or tubing in a pathway where a person could trip on them and sustain injury.
18. Kangaroo OMNI™ Enteral Feeding Pump is designed for use on a conventional IV pole. As with any medical device, it is possible for the weight of Kangaroo OMNI™ Enteral Feeding Pump to cause the IV pole to tip over. This could result in injury to a patient or operator. When attaching Kangaroo OMNI™ Enteral Feeding Pump to the IV pole, take precautions to ensure the IV pole remains stable while in use. It is recommended to consider the influence of pets and children when deciding where to place an IV pole. It is important to prevent children and pets from tipping the IV pole, which could result in injury.
19. When attaching Kangaroo OMNI™ Enteral Feeding Pump to an IV pole, ensure the pole clamp is tightly secured to the pole to prevent the pump from falling.
20. Ensure audio output is unobstructed during normal operation so as to allow clear recognition of alarms. Inability to hear the alarms could pose a serious risk to the patient, since the operator may not hear an alarm.
21. Additional equipment connected to medical electrical equipment must comply with the respective IEC or ISO standards (e.g. IEC 60950/IEC 62368) for data processing equipment. Furthermore all configurations shall comply with the requirements for medical electrical systems (See IEC 60601-1-1 or Clause 16 of the 3rd Edition or IEC 60601-1, respectively). Anyone connecting additional equipment to medical electrical equipment configures a medical system and is therefore responsible that the system complies with the requirements for medical electrical systems. Local laws take priority over the above mentioned requirements. If in doubt, consult your local representative or the technical service department.
22. Kangaroo OMNI™ Enteral Feeding Pump was designed to meet IEC 60601-1 safety standards. For clarification purposes, the Kangaroo OMNI™ Feeding Set is considered an Applied Part and has been tested and evaluated accordingly.
23. Kangaroo OMNI™ Enteral Feeding Pump is designed and tested 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 Kangaroo OMNI™ Enteral Feeding Pump. Electromagnetic interference could make the display unreadable or prevent Kangaroo OMNI™ Enteral Feeding Pump from being able to feed.
24. For service or for technical information, please contact Customer Service.
25. Avoid using accessories, detachable parts or materials with Kangaroo OMNI™ Enteral Feeding Pump that are not recommended in this manual. Use only approved Kangaroo OMNI™ Enteral Feeding Pump accessories with Kangaroo OMNI™ Enteral Feeding Pump. Failure to use approved accessories could result in either damage to Kangaroo OMNI™ Enteral Feeding Pump or physical injury.
26. Use Kangaroo OMNI™ Enteral Feeding Pump only as directed in this user manual. Do not interconnect Kangaroo OMNI™ Enteral Feeding Pump with other devices or modify the equipment in any way outside of the recommendations in this manual. Failure to comply could result in incorrect delivery of enteral fluids to the patient or could damage Kangaroo OMNI™ Enteral Feeding Pump.
27. Kangaroo OMNI™ Enteral Feeding Pump are not intended to be used in MRI environments or in the presence of strong magnetic fields. Do not use Kangaroo OMNI™ Enteral Feeding Pump in any areas with strong magnetic fields. Kangaroo OMNI™ Enteral Feeding Pump contain metal components which could cause unintended movement. This unexpected movement could cause harm due to falling objects or collisions.
28. Always disconnect the power adapter before cleaning or servicing. Failure to do so could result in electric shock to the user performing the cleaning function. In some cases, electric shock can be fatal.
29. Use only the supplied power adapter to charge your Kangaroo OMNI™ Enteral Feeding Pump.
30. **Do not** open Kangaroo OMNI™ Enteral Feeding Pump as there are no user-serviceable parts inside. Opening may affect function of device and voids the warranty. Kangaroo OMNI™ Enteral Feeding Pump is equipped with tamper protection. The pump may cease to function if opened.
31. The application of this device is not bound to nutrition solutions of certain manufacturers.

Considerations for Infants and Children

1. Thick formula is not recommended for use in infants <6 months of age.
2. Use **caution** when administering thick formula in patients who cannot tolerate delivery of the prescribed volume within 10% accuracy. This includes, but is not limited to infants, critically ill patients or those who may experience a clinical impact due to underfeeding or overfeeding.

Intended Purpose (Intended Use)

The Kangaroo OMNI™ Enteral Feeding Pump with Kangaroo OMNI™ Feeding Sets are intended for delivery of enteral fluids, including nutritional fluids and/or water to the gastrointestinal system via nasogastric, orogastric, nasojejunal, gastrostomy, and jejunostomy tubes. **Not for use** with neonates.

Indications for Use

The Kangaroo OMNI™ Enteral Feeding Pump with Kangaroo OMNI™ Feeding Sets are indicated for use in patients ages infant and older who are physically unable to eat and swallow or who are unable to get sufficient nutrition through eating and swallowing. The Kangaroo OMNI™ Enteral Feeding Pump and Feeding Set are intended to be used together as a system. Kangaroo OMNI™ Enteral Feeding Sets for administration of standard formula are able to be connected to access devices of all sizes that are ENFit™ compatible. The Kangaroo OMNI™ Thick Formula Feeding Sets for administration of thick formula can be used with access devices 8 Fr size or greater that are ENFit™ compatible.

It is recommended to administer thick formula into the stomach for optimal digestion. Enteral feeding using standard formulas and sets do not have a restriction on anatomical placement of the access device.

1. **Strangulation Hazard. Do Not** leave tubing and cords where infants, children, or those deemed at high risk for medical line entanglement can become entangled. Be aware that if these items become wrapped around a patient's neck, there is an increased risk of strangulation or death. Caregivers of patients who are at risk for entanglement should discuss with their health care provider how to properly manage their lines and properly monitor patients based on their needs while in use.
2. **Choking Hazard. Do Not** leave small components in reach of small children. Kangaroo OMNI™ Enteral Feeding Pump, and Kangaroo OMNI™ Feeding Sets all contain small parts which could become detached and pose a choking hazard. Some of these components could be inhaled or swallowed by a small child, toddler, or infant, which could result in suffocation and death.
3. Only use Kangaroo OMNI™ Enteral Feeding Pump for patients who can tolerate the flow rates and accuracy of the Kangaroo OMNI™ Enteral Feeding Pump. Delivery of enteral fluids to patients who cannot tolerate Kangaroo OMNI™ Enteral Feeding Pump accuracy can result in under or over delivery with the possibility of aspiration.
4. The clinician will make the informed determination as to the type of administering protocol that is most appropriate for each specific patient.

Battery Pack

Caution: The battery cells used in Kangaroo OMNI™ Enteral Feeding Pump may present a fire or chemical hazard if mistreated. **Do not** disassemble, heat above 60°C (140°F), or incinerate. Avoid exposing the battery pack to heat or fire since a fire or explosion hazard could result.

1. Kangaroo OMNI™ Enteral Feeding Pump utilizes a medical grade power supply adapter specifically designed for use only with Kangaroo OMNI™ Enteral Feeding Pump's lithium-ion battery charging circuit. Use of an alternate consumer-style power adapter or DC car adapter may cause damage to the charging circuit and battery of Kangaroo OMNI™ Enteral Feeding Pump.
2. Kangaroo OMNI™ Enteral Feeding Pump contains a rechargeable lithium-ion battery. When disposing of Kangaroo OMNI™ Enteral Feeding Pump, be sure to discard Kangaroo OMNI™ Enteral Feeding Pump in a manner consistent with institutional policy for expired battery-operated equipment.
3. The stated battery life is approximate. Performance of the battery may degrade due to excessive temperatures, frequent recharging, and other factors.
4. Avoid using battery packs from other providers. Only Kangaroo OMNI™ Enteral Feeding Pump battery packs are approved for use in Kangaroo OMNI™ Enteral Feeding Pump.
5. After extended periods of storage, it may be necessary to charge and discharge the battery several times to obtain optimum performance.

Features

- Large, color LCD display
- Night Mode reduces screen brightness by changing from full color display to black and amber
- Quiet Kangaroo OMNI™ Enteral Feeding Pump operation
- Step-by-step prompts and animated illustrations to guide Kangaroo OMNI™ Enteral Feeding Pump operation
- "Stoplight" LED array visually indicates Kangaroo OMNI™ Enteral Feeding Pump status
- Configurable 19 language user interface
- Kangaroo OMNI™ Enteral Feeding Pump is designed for cleaning under running water
- Integrated handle for portability
- Rubberized casing for better grip
- Compact, lightweight design
- Impact-resistant design to help minimize damage if dropped
- Tabletop, bed rail, or IV pole mounting
- No drip chamber allows pump to operate in various orientations
- ENFit™ cap storage
- Cord retention feature
- 20 hour battery life at 125 mL/hr
- 18 hours of battery life at 400 mL/hr
- 23 hours of battery life at 50 mL/hr
- Cassette based Kangaroo OMNI™ Feeding Set to facilitate set loading
- Simple, one-handed loading of Kangaroo OMNI™ Feeding Set cassette
- Color-coded Kangaroo OMNI™ Feeding Set identification system
- Audible alarm to indicate errors or Kangaroo OMNI™ Feeding Set-related conditions
- Interrupted Feeding screen for better adherence to nutrition prescription compliance
- Continuous and intermittent feeding capability
- Integrated programmable feed and flush capability
- Automatic Kangaroo OMNI™ Feeding Set priming
- Programmable timed pause
- View up to 30 days of feeding history

Kangaroo OMNI™ Enteral Feeding Pump Overview

Kangaroo OMNI™ Enteral Feeding Pump Overview: Front

Selection Buttons: Press the selection buttons next to the desired option on the screen.

Night Mode Button: Press once to switch screen to night mode. Press again to return to normal mode.

Power Indicator Light: Green light confirms Kangaroo OMNI™ Enteral Feeding Pump is connected to AC power.

Cassette: The feeding set component that attaches to the Kangaroo OMNI™ Enteral Feeding Pump.

Pump Rotor: Circular black wheel that drives fluid through the Kangaroo OMNI™ Feeding Set.

Occlusion Sensor: Pump component used to determine fluid presence and detect occlusions.

Valve Actuator: Pump component that opens and closes the Kangaroo OMNI™ Feeding Set valve used to prevent free flow of fluid.

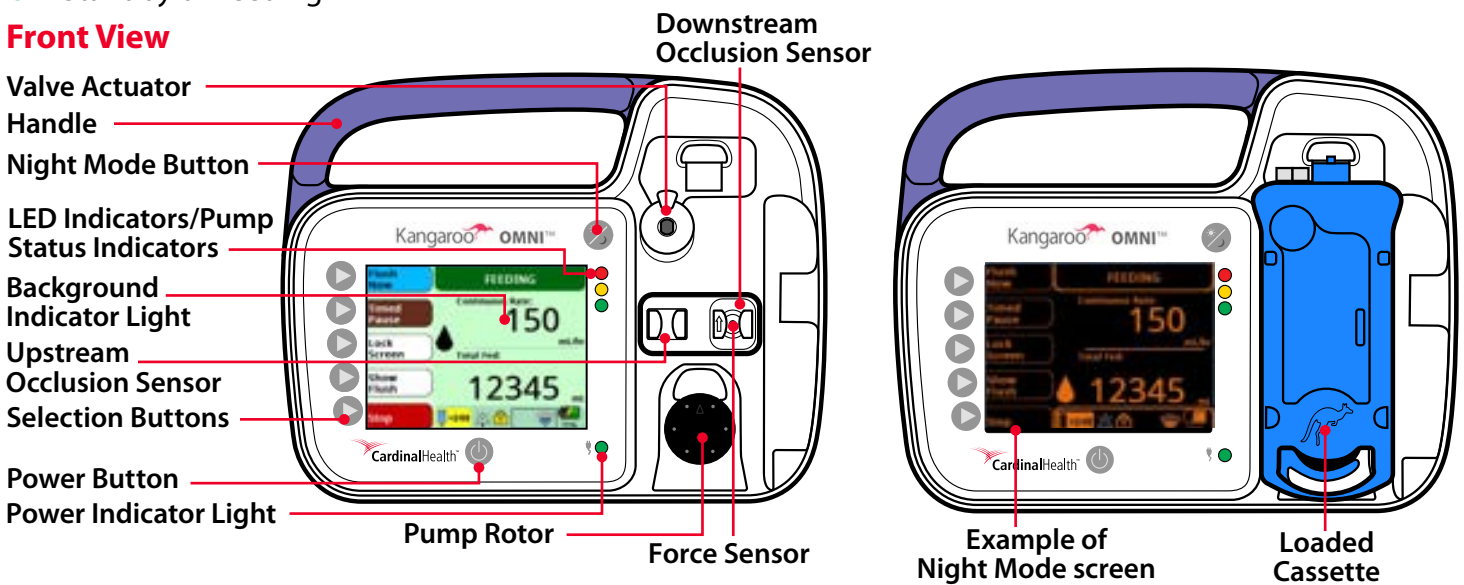
Status Indicators:

● = Warning Alarm

● = Information or Caution Alarm

● = Standby or Feeding

Front View



Kangaroo OMNI™ Enteral Feeding Pump Overview: Back & Side

Cord Retention Feature: Secures power supply cable when using standard (non-adjustable) pole clamp.

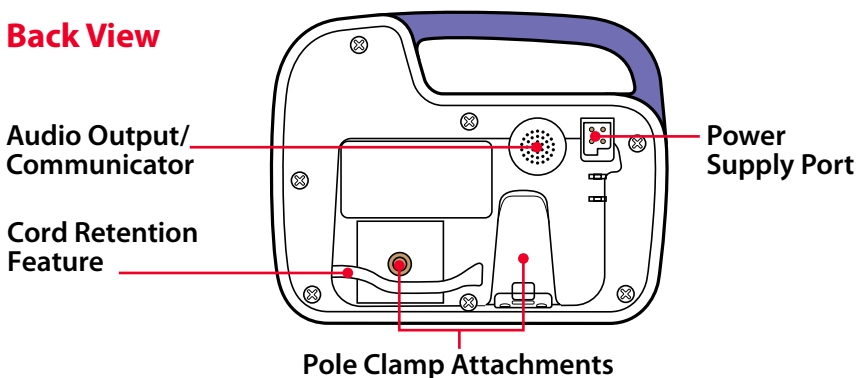
Pole Clamp Attachments: Attachment points for both standard (non-adjustable) and adjustable pole clamps.

Power Supply Port: Connection point for power supply/charge cable and Kangaroo OMNI™ Communications Cable.

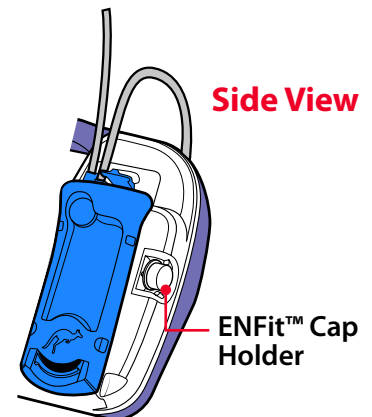
ENFit™ Cap Holder: Location to store ENFit™ cap while not in use.

Audio Output: Outlet for audible alarms.

Back View



Side View

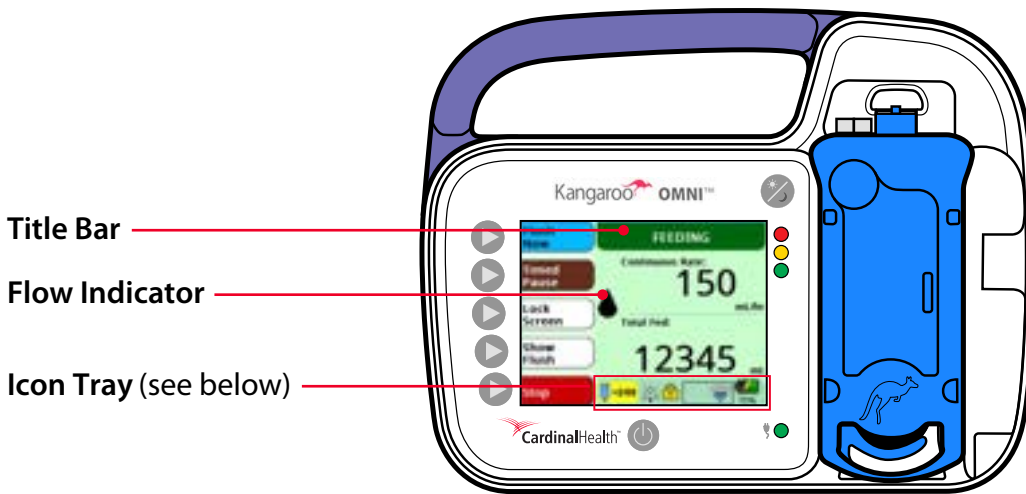


Kangaroo OMNI™ Enteral Feeding Pump Overview

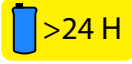



Kangaroo OMNI™ Enteral Feeding Pump Overview: User Interface

Title Bar: Communicates current running status of Kangaroo OMNI™ Enteral Feeding Pump.



Flow Indicator: Moving droplet indicates that Kangaroo OMNI™ Enteral Feeding Pump is delivering enteral fluid and is working normally.



Icon Tray

	Set Usage >24 Hrs: Indicates if the Kangaroo OMNI™ Feeding Set has been installed for more than 24 hrs.
	Audio Paused: Shows if audio has been muted/silenced.
	Lock Settings: Shows if Kangaroo OMNI™ Enteral Feeding Pump settings have been locked to prevent tampering.
	Battery Charge Status: Shows the percentage of charge remaining on Kangaroo OMNI™ Enteral Feeding Pump battery. A lightning bolt icon over the battery indicates that the battery is charging.

Alarm Button Icons

	Mute Alarm: Press to temporarily silence alarm.
	Restore Alarm: Press to restore the sound of a previously acknowledged alarm.

Kangaroo OMNI™ Enteral Feeding Pump Overview

Kangaroo OMNI™ Feeding Set Overview

The below is an example of a Kangaroo OMNI™ ENTelliSet™ Feeding Set with Flush Bag for illustration purposes only.

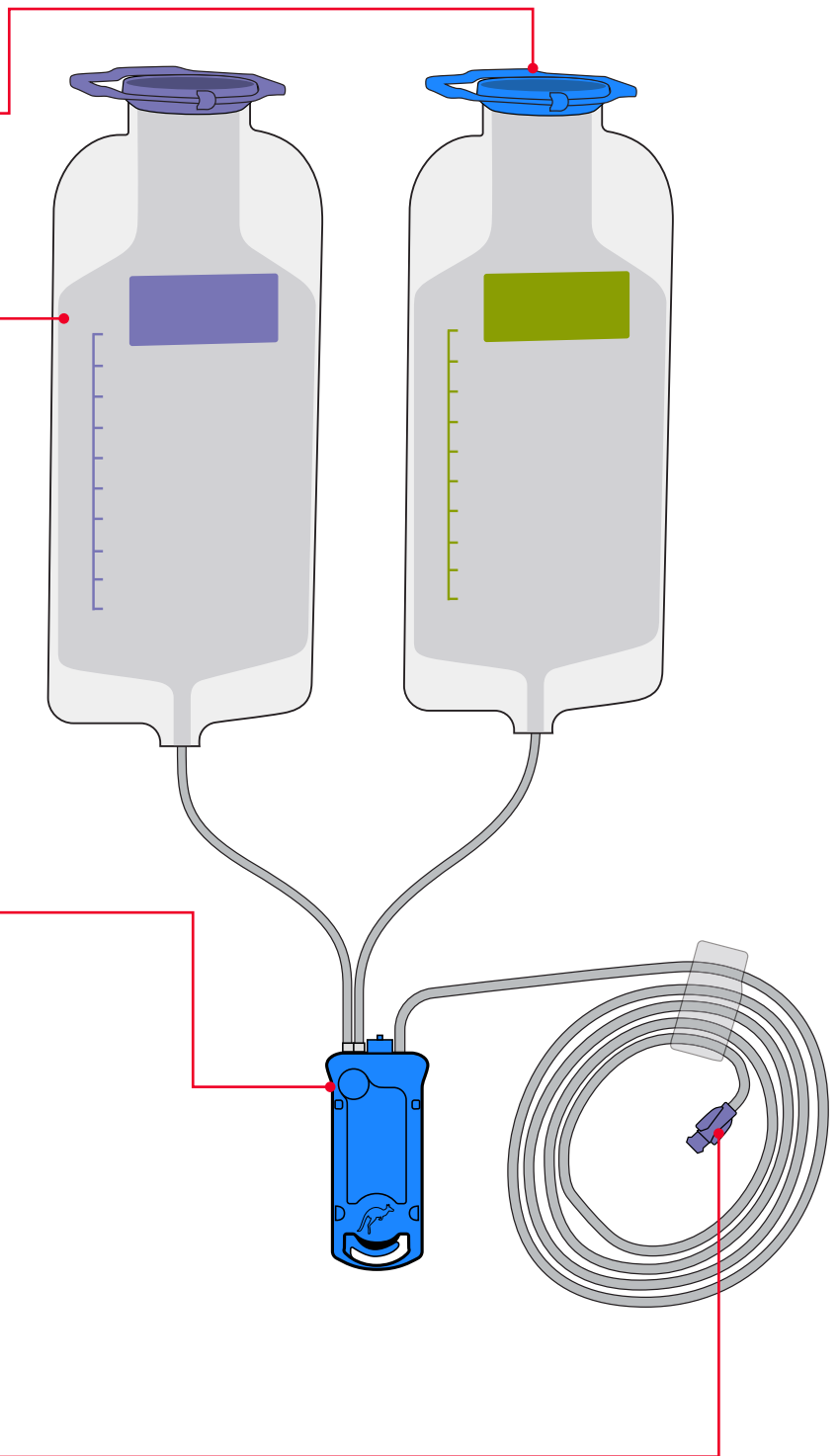
Note: product availability and type vary by region.

Flush Bag: (when applicable) intended for use in the administration of water to help manage patient hydration requirements and help keep the feeding tube patent to avoid tube clogs.

Feeding Set Bag: (also available in Spike Set option) intended for use in the administration of enteral fluids.

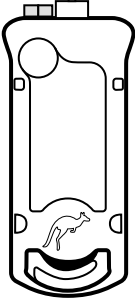
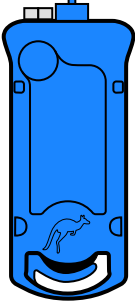
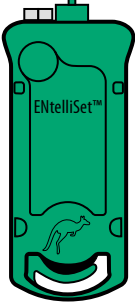
Kangaroo OMNI™ Feeding Sets: various feeding set options are compatible and available for use with the Kangaroo OMNI™ Enteral Feeding Pump Platform, see table on following page for the list of Kangaroo OMNI™ Feeding Sets.

ENFit™ Feeding Set Connector: connects the feeding set to the feeding tube. The ENFit™ enteral feeding connector features a unique design to reduce the risk of enteral feeding tube misconnections and improve patient safety using internationally recognized ISO 80369-3 guidelines.



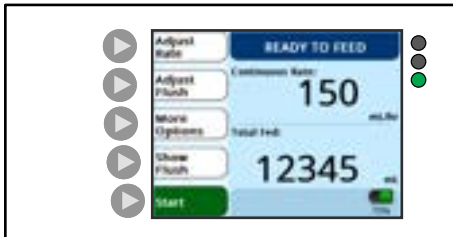
Kangaroo OMNI™ Enteral Feeding Pump Overview

Kangaroo OMNI™ Feeding Set Overview

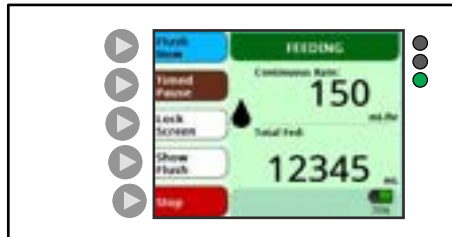
CASSETTE	COLOR	PRODUCT NAME	DESCRIPTION
	Clear	Kangaroo OMNI™ Feeding Set	Feeding set designed to deliver available formula (categorized as level 0-1 within the IDDSI framework)
	Blue	Kangaroo OMNI™ Feeding Set with Flush Bag	Feeding set designed to deliver available formula (categorized as level 0-1 within the IDDSI framework) and water for hydration/flushing
	Green	Kangaroo OMNI™ ENTelliSet™ Thick Formula Feeding Set Kangaroo OMNI™ ENTelliSet™ Thick Formula Feeding Set with Flush Bag	Feeding set designed to deliver homogenized, blenderized formulas (categorized as level 2, 3, or 4 drinks within the IDDSI framework) Feeding set designed to deliver homogenized, blenderized formulas (categorized as level 2, 3, or 4 drinks within the IDDSI framework) and water for hydration/flushing

Kangaroo OMNI™ Enteral Feeding Pump Overview

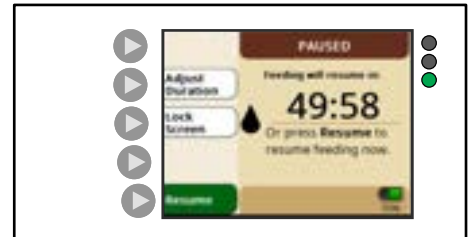
Screen Color Meaning



Blue Background:
Configuring pump for use
Feeding set valve closed



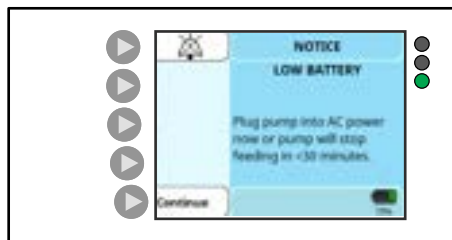
Green Background:
Pump running
Droplet will be moving
Feeding set valve open



Brown Background:
Pumping paused
Droplet will be paused
Feeding set valve open



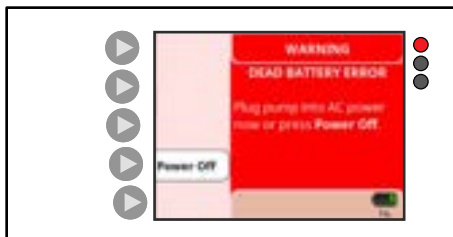
Orange Background:
Caution



Light blue Background:
Low Priority Alarm



Yellow Background:
Medium Priority Alarm



Red Background:
High Priority Alarm



Purple Background:
Biotech Mode

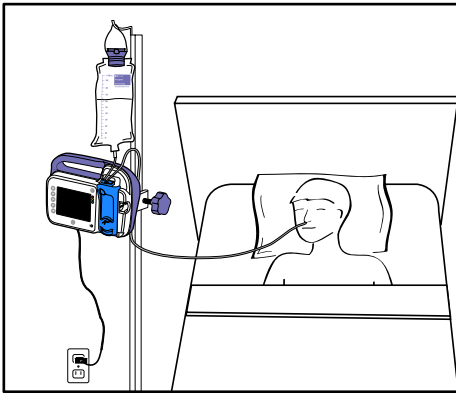
Kangaroo OMNI™ Enteral Feeding Pump Overview

Kangaroo OMNI™ Default Settings

The pump is manufactured with the following default settings:

FEATURE	DEFAULT SETTING
Feed Rate	0 mL/hr
Flush Volume	0 mL
Flush Interval	1 hr
Intermittent Mode	Off
# of Feeds (Intermittent Mode)	1
Feed Volume (Intermittent Mode)	0 mL
Feed Interval (Intermittent Mode)	1 hr
Feed Complete Audio	On
Alarm Audio Volume	3 (1 to 5 scale)
Screen Brightness	3 (1 to 4 scale)
Interruption Monitor	Off
Timed Pause Option	On
Timed Pause Time	5 min
Language	English

System Setup



Above image for illustrative purposes only. Does not accurately depict recommended setup.

Important Note: A newly purchased Kangaroo OMNI™ Enteral Feeding Pump comes with Kangaroo OMNI™ Enteral Feeding Pump, AC power adapter, Kangaroo OMNI™ Feeding Set, and pole clamp. Kangaroo OMNI™ Enteral Feeding Pump and along with Kangaroo OMNI™ Feeding Sets and accessories, need to be installed and put into service in accordance with the information provided by this manual and accompanying documents.

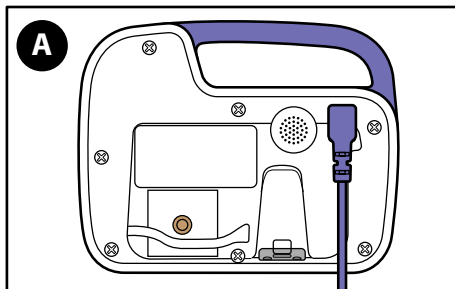
INITIAL SETUP

1. Charge Kangaroo OMNI™ Enteral Feeding Pump

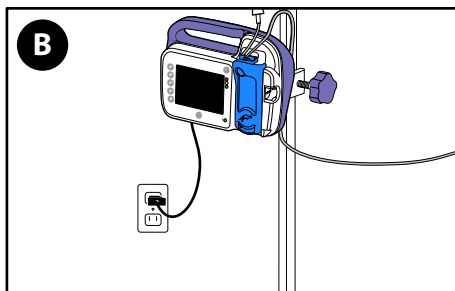
WARNING: The use of multiple socket-outlets or extension cords will compromise electrical safety and/or increase the risk of electrical shock.

CAUTION: Avoid leaving wires, cords, or tubing in a pathway where a person could trip on them and sustain an injury.

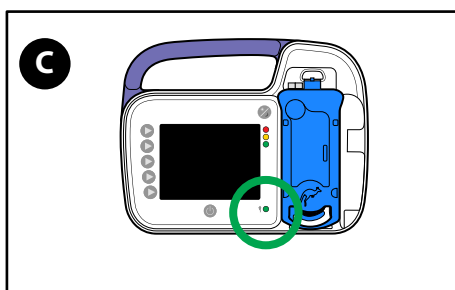
CAUTION: Use only the supplied power adapter to charge your Kangaroo OMNI™ Enteral Feeding Pump.



- A. Plug the power adapter into the power adapter port located on the back of Kangaroo OMNI™ Enteral Feeding Pump.



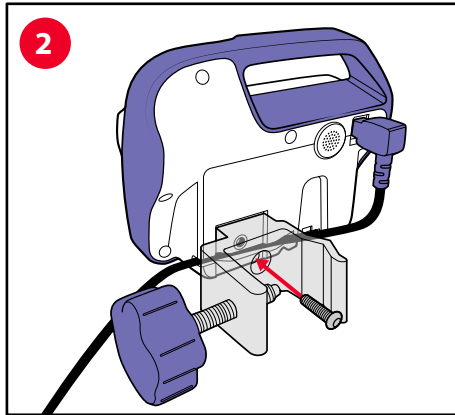
- B. Plug the other end of the power adapter into a nearby AC outlet.



- C. Confirm the green Power Indicator Light is on to ensure Kangaroo OMNI™ Enteral Feeding Pump is receiving power.

Note: Charge Kangaroo OMNI™ Enteral Feeding Pump for a minimum of 12 hours before initial use.

System Setup

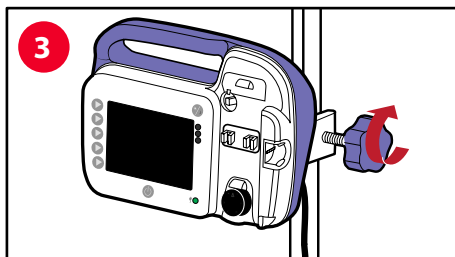


2. Attach the Pole Clamp to Kangaroo OMNI™ Enteral Feeding Pump

- A. Use the screw provided to attach the pole clamp to the back of Kangaroo OMNI™ Enteral Feeding Pump. The pole clamp can be attached in a horizontal or vertical orientation.

Optional: Place the power cable into the channel on the back of Kangaroo OMNI™ Enteral Feeding Pump. This will ensure the power adapter stays with Kangaroo OMNI™ Enteral Feeding Pump once the pole clamp is attached.

Note: If you are using the adjustable pole clamp accessory, refer to Cap Storage and Pole Clamp Setup section for instructions.

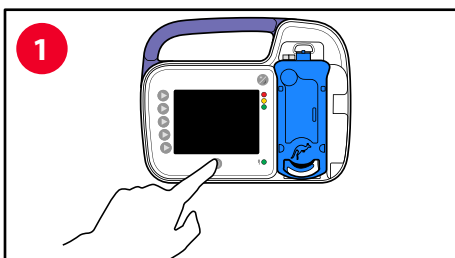


3. Attach the Pole Clamp and Kangaroo OMNI™ Enteral Feeding Pump to the IV Pole

CAUTION: When attaching Kangaroo OMNI™ Enteral Feeding Pump to the IV pole, take precautions to ensure the IV pole remains stable while in use.

- A. Place the inside elbow of the clamp against IV pole.
- B. Turn the purple knob clockwise until secure.

Kangaroo OMNI™ Enteral Feeding Pump SETUP



1. Turn On Kangaroo OMNI™ Enteral Feeding Pump

- A. Press the **Power** button to turn on Kangaroo OMNI™ Enteral Feeding Pump.

Note: The language selection screen will appear the first time Kangaroo OMNI™ Enteral Feeding Pump is powered on.

2. Select Kangaroo OMNI™ Enteral Feeding Pump Settings

Note: The Prior Settings screen will appear if the pump was previously configured. Otherwise, the Load Set screen will be shown.

2a Keep the previous rate/feed settings:



- A. Press the **Keep Settings** button.

System Setup

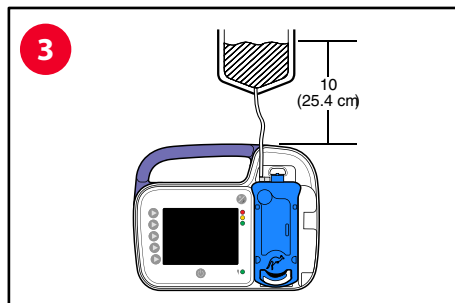
2b. Clear previous rate/feed settings:



A. Press the **Clear Settings** button.



B. Press the **Adjust Rate** button or the **Adjust Flush** button and make any desired adjustments. (See Set Feed/Rate section below for additional information).



3. Hang Feeding Bag/Feeding Container on IV Pole

CAUTION: The top of the starting volume of enteral fluids should be 10 inches above the top of Kangaroo OMNI™ Enteral Feeding Pump.

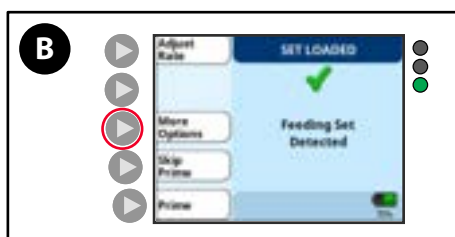
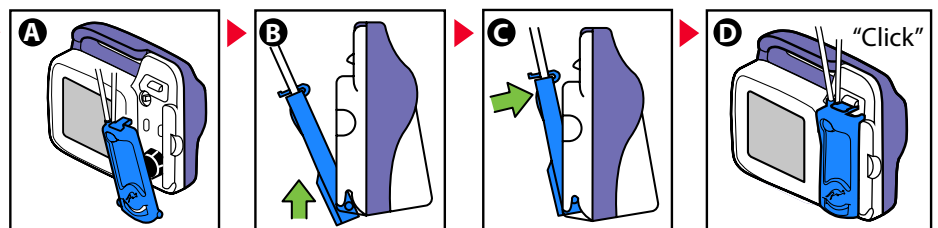
A. Hang the feeding bag or feeding container so the highest level of enteral fluids is 10 inches (25.4 cm) above Kangaroo OMNI™ Enteral Feeding Pump (as shown).



4. Install the Kangaroo OMNI™ Feeding Set Cassette

CAUTION: Use only approved Kangaroo OMNI™ Feeding Sets with Kangaroo OMNI™ Enteral Feeding Pump.

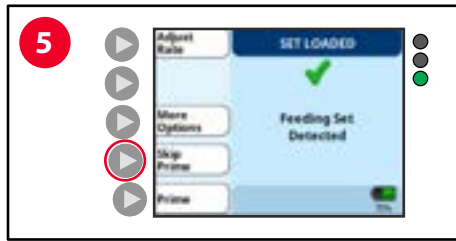
A. Load the cassette onto Kangaroo OMNI™ Enteral Feeding Pump by following the animated instructions on the screen. You will hear a “click” when the cassette has been installed correctly.



B. The Set Loaded screen will confirm that Kangaroo OMNI™ Enteral Feeding Pump has correctly identified the Kangaroo OMNI™ Feeding Set. You will now be ready to prime the Kangaroo OMNI™ Feeding Set.

Optional: To change Kangaroo OMNI™ Enteral Feeding Pump preferences, press the **More Options** button (see More Options section for additional information).

System Setup

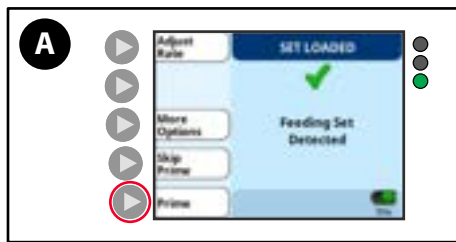


5. Prime Kangaroo OMNI™ Enteral Feeding Pump

Note: If the Kangaroo OMNI™ Feeding Set is already primed, press the **Skip Prime** button.

5a. Auto Prime Kangaroo OMNI™ Enteral Feeding Pump Feed Only or Feed with Flush Feeding Set

To prime the Kangaroo OMNI™ Feeding Set, first fill the bag(s) with feeding solution or connect a pre-filled container.



A. Press the **Prime** button.

WARNING: Patient **must not** be connected to Kangaroo OMNI™ Enteral Feeding Pump when priming is performed.

Please note: When using a Feed with Flush Feeding Set, **always** prime the flush tubing before the feed tubing when using Kangaroo OMNI™ Feed Sets with Flush Bags. The Auto Prime feature of Kangaroo OMNI™ will manage this for you. Priming the flush tubing after priming the feed tubing will introduce air in the tubing after the feeding solution, which will require the feed tubing to be primed again to remove the air.



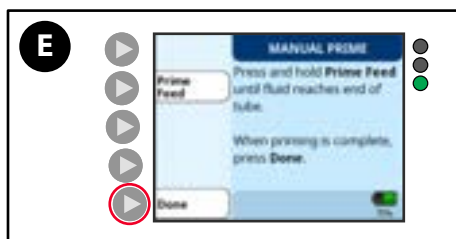
B. Press the **Auto Prime** button to automatically prime the feeding set or feed with flush set.



C. Kangaroo OMNI™ Enteral Feeding Pump will show a progress bar indicating the automatic prime is in process. Wait for the priming to complete.



D. Press and hold the **Prime Feed** button until the feeding solution just begins to exit the distal connector.

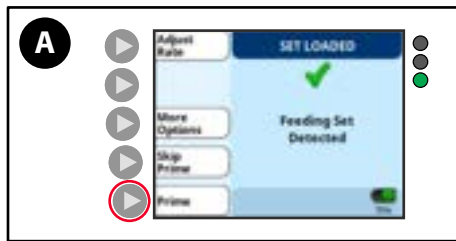


E. Press the **Done** button to continue with Kangaroo OMNI™ Enteral Feeding Pump set-up.

System Setup

5b. Manually Prime Kangaroo OMNI™ Feed Only Feed Set

To prime the Kangaroo OMNI™ Feeding Set, first fill the bag(s) with feeding solution or connect a pre-filled container.

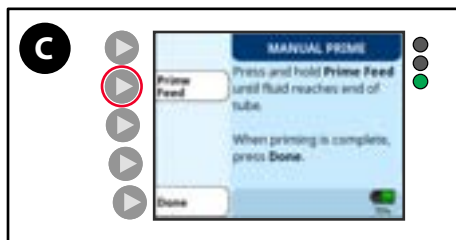


A. Press **Prime**.

WARNING: Patient **must not** be connected to Kangaroo OMNI™ Enteral Feeding Pump when priming is performed.



B. Press **Manual Prime**.



C. Press and hold the **Prime Feed** button until the feeding solution just begins to exit the distal connector.

Note: When using Manual Prime feature, Feed Bag Empty, and Patient Tube Blocked alarms are disabled. Flush options will only be present when a feeding set with flush bag is used.



5c. Manually Prime Kangaroo OMNI™ Feed with Flush Feeding Set

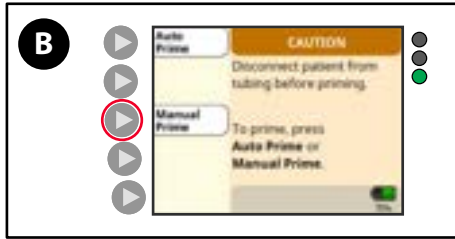
To prime the Kangaroo OMNI™ Feeding Set, first fill the bag(s) with feeding solution or water, or connect a pre-filled container.



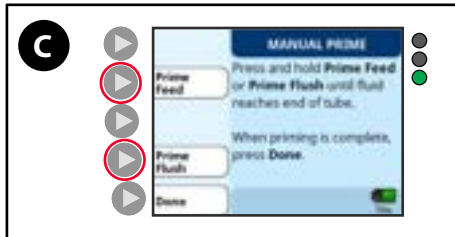
A. Press **Prime**.

WARNING: Patient **must not** be connected to Kangaroo OMNI™ Enteral Feeding Pump when priming is performed.

System Setup



B. Press **Manual Prime**.



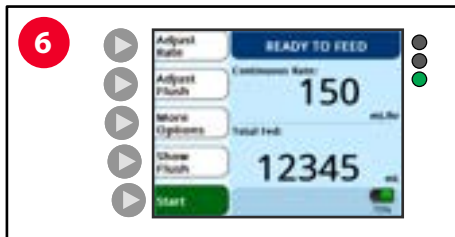
C. Press and hold the **Prime Feed** or **Prime Flush** button until the solution just begins to exit the distal connector.

Note: When using Manual Prime feature; Feed Bag Empty, and Patient Tube Blocked alarms are disabled. Flush options will only be present when a feeding set with flush bag is used.

Caution: prime the flush tube before the feed tube when using Kangaroo OMNI™ Feed Sets with Flush Bags. The Auto Prime feature of Kangaroo OMNI™ will manage this for you. Priming the flush tube after priming the feed tube will introduce air in the tubing after the feeding solution, which will require the feed tube to be primed again to remove the air.



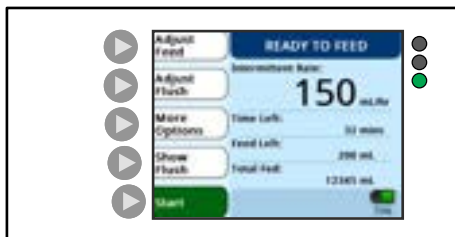
Continuous Mode



6. Adjusting Rate, Feed, and Flush

Upon completion of the prime, the Ready to Feed screen will appear.

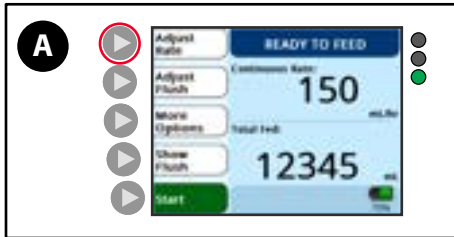
Intermittent Mode



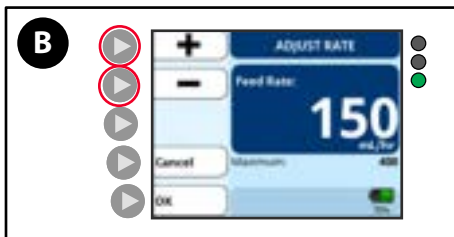
System Setup

6a. Adjusting Continuous Feeds

Continuous Feeds is a feeding mode where a patient is fed continuously at a prescribed flow rate. The Rate feature on Kangaroo OMNI™ Enteral Feeding Pump is used to establish a fixed volume per hour (mL/hr) rate that will continue until the feed runs out or Kangaroo OMNI™ Enteral Feeding Pump is stopped.



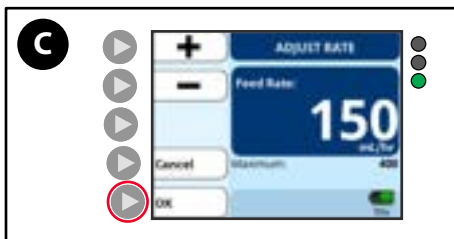
A. Press the **Adjust Rate** button to set the continuous feeding rate.



B. Press the + and – buttons to increase or decrease the rate.

Note: Press and hold either button to accelerate the numbers.

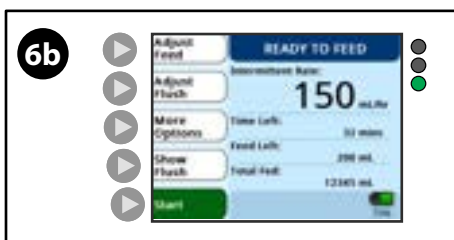
Note: If accessing Bolus Max feature, navigate to a rate of 400mL/hr, then press the + button again. A confirmation screen will appear that will allow access to Bolus Max.



C. Press the **OK** button when desired rate has been selected.

6b. Adjusting Intermittent Feeds

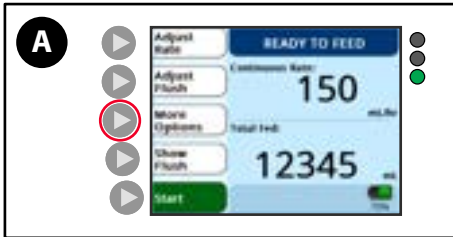
The Intermittent Feeding feature on Kangaroo OMNI™ Enteral Feeding Pump is used to deliver a fixed volume of feed to the patient. Kangaroo OMNI™ Enteral Feeding Pump can be configured to deliver a single feed or multiple feeds at fixed intervals. Once the Intermittent Feeding is complete, Kangaroo OMNI™ Enteral Feeding Pump will stop operation and display a “Feed Complete” notification.



Note: If the Ready to Feed screen has the **Adjust Rate** button on the top left of the screen, **Intermittent Mode** will need to be enabled before the feature can be used. Please refer to the next section to enable Intermittent Mode.

System Setup

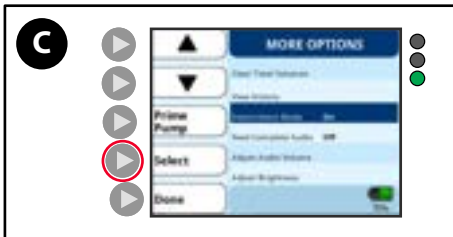
To Enable Intermittent Mode:



A. Press the **More Options** button on the Ready to Feed screen.



B. Press the down arrow button until Intermittent Mode is highlighted.

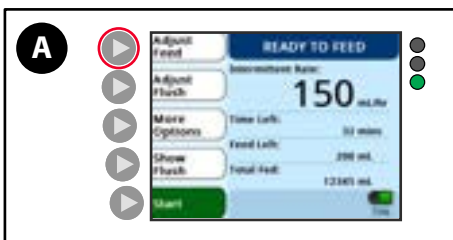


C. Press the **Select** button. "On" or "Off" will be displayed to indicate the present Intermittent Mode state.

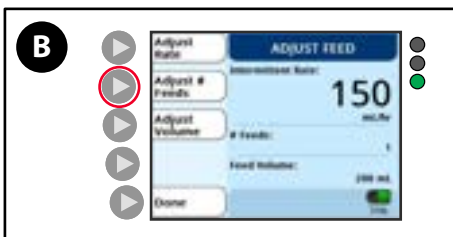


D. Press the **Done** button to return to the Ready to Feed screen. The **Adjust Feed** button will now appear and Feed settings can be adjusted.

6c. Adjust Intermittent Mode Feed Settings



A. Press the **Adjust Feed** button to configure the Feed settings.



B. Press the **Adjust # Feeds** button.

System Setup



C. Press the + and – buttons to set the number of feeds to be delivered.



D. Press **OK** to save the settings and return to the **Adjust Feed** screen.



E. Press the **Adjust Volume** button to set the Feed volume.



F. Press the + and – buttons to set the volume of feed to be delivered.



G. Press **OK** to save the settings and return to the **Adjust Feed** screen.



H. Press the **Adjust Interval** button to set the Feed interval.
Note: The **Adjust Interval** button will not appear if the # of Feeds is set to 1.



I. Press the + and – buttons to set the interval of feeds to be delivered.

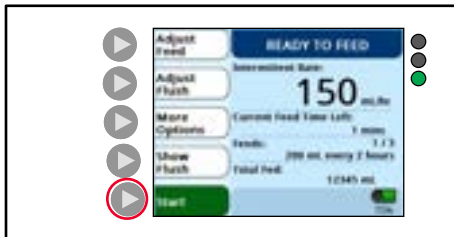
System Setup



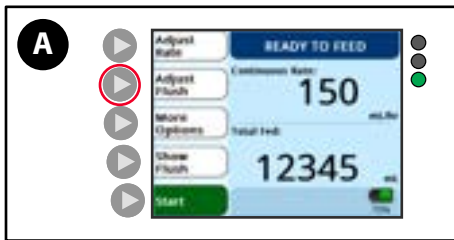
J. Press **OK** to save the settings and return to the **Adjust Feed** screen.



K. Press **Done** to return to the **Ready to Feed** screen.



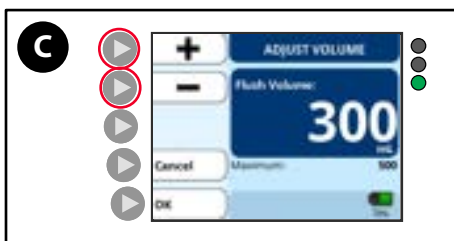
6d. Adjusting Flush (Feed with Flush Kangaroo OMNI™ Sets)



A. Press the **Adjust Flush** button from Ready to Feed screen.



B. Press the **Adjust Volume** button.



C. Press the + and – buttons to input the desired flush volume.

System Setup



D. Press the **OK** button to confirm the flush volume and return to the **Adjust Flush** screen.



E. Press the **Adjust Interval** button.



F. Press the + and – buttons to input the desired time interval.



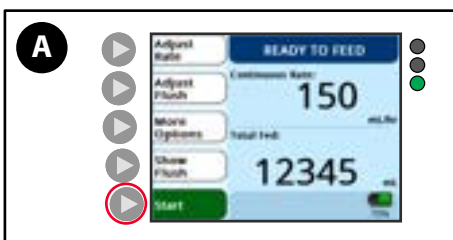
G. Press the **OK** button to confirm the time interval and return to the **Adjust Flush** screen.



H. Press the **Done** button to confirm the time interval and return to the **Ready to Feed** screen.

7. Start Feeding

Continuous Mode



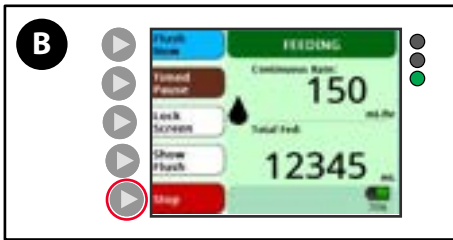
A. Press the **Start** button to begin feeding.
Note: Start button will only appear when all feed or all flush parameters have been entered.

System Setup

Intermittent Mode



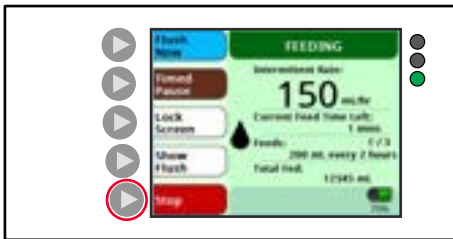
Continuous Mode



- B. To change the rate or feed setting once feeding has started, press the **Stop** button.

Note: A green screen with a moving droplet means the feeding is in progress.

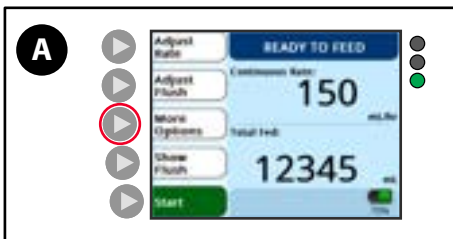
Intermittent Mode



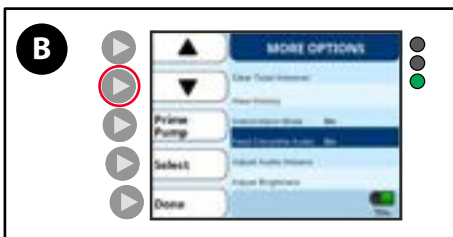
Turn Off Feed Complete Audio (Optional)

A feeding regime will end with either a "Feed Error" alarm or "Feed Complete" notification. The audio portion of the "Feed Complete" notification may be disabled to avoid waking patients undergoing night time feeds.

Note: The programmed feed volume must be less than the amount of available feeding solution for the "Feed Complete" notification to appear at the end of a feed. If the programmed feed volume is more than the available feeding solution, Kangaroo OMNI™ Enteral Feeding Pump will alarm "Feed Error".



- A. Press the **More Options** button on the Ready to Feed screen.

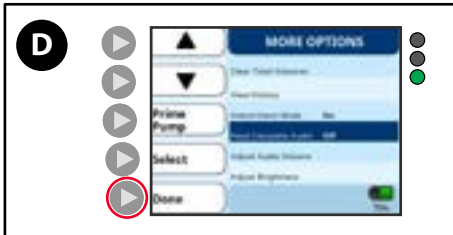


- B. Press the down arrow button until Feed Complete Audio is highlighted.

System Setup

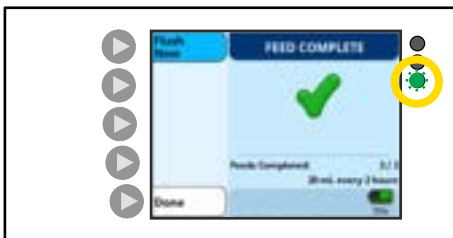


C. Press the **Select** button to toggle the audio between "On" and "Off".



D. Press the **Done** button to return to the Ready to Feed screen.

Feed Complete Information Signal



Pump Status Indicator: blinking green 

The FEED COMPLETE screen appears at the end of a single or multiple feed.



A. Press **Done** to clear the notification.

Feed Incomplete Information Signal



LED Indicator: blinking green 

The FEED INCOMPLETE appears if a single or multiple feed is interrupted prior to completion of the allocated amount.



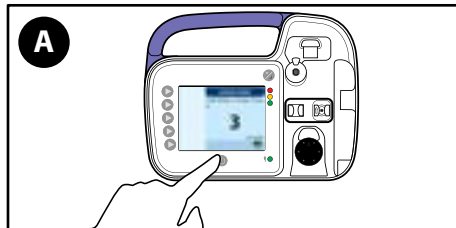
A. Press **Continue Feed(s)** to continue feeding from the current Kangaroo OMNI™ Enteral Feeding Pump state.

System Setup



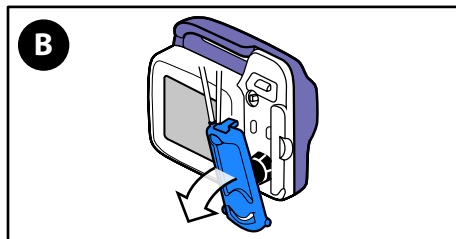
- B. Press **Restart Feeds** if you are beginning a new, full feeding regimen.

Turn Off Kangaroo OMNI™ Enteral Feeding Pump



- A. Press and hold Power Button for 3 seconds.

Note: Turning off Kangaroo OMNI™ Enteral Feeding Pump will save settings.

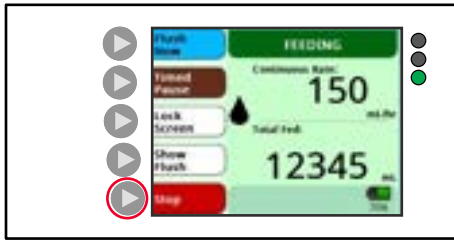


- B. Remove and dispose of feeding set.

Additional Options

ADDITIONAL OPTIONS WHILE FEEDING IS IN PROGRESS

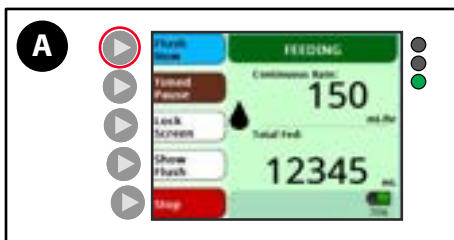
Stop Feeding



Press the **Stop** button to end the feeding at any time.

Flush Now

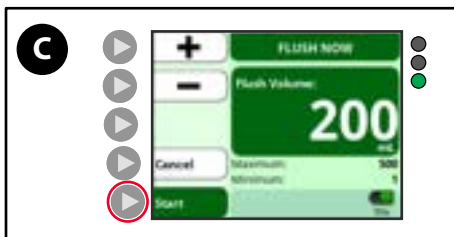
While Kangaroo OMNI™ Enteral Feeding Pump is running with a feed and flush set installed, Kangaroo OMNI™ Enteral



A. Press the **Flush Now** button to flush on demand.



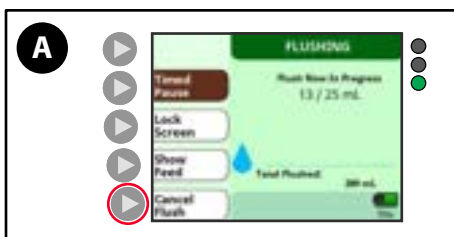
B. Press the + and – buttons to input the desired flush volume.



C. Press **Start** to begin Flush Now.

Stop Flush Now Before Flush Now Volume is Delivered

While Flush Now is in process, Kangaroo OMNI™ Enteral Feeding Pump will indicate the progress of the flush. When the Flush Now volume has been delivered, Kangaroo OMNI™ Enteral Feeding Pump will automatically resume feeding.



A. Press the **Cancel Flush** button to stop a Flush Now that is in progress and return to feeding.

Additional Options

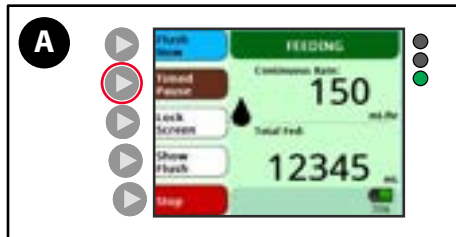
Pause Feeding

The Timed Pause feature allows Kangaroo OMNI™ Enteral Feeding Pump to be paused temporarily for a period of 5 to 240 minutes. While paused, Kangaroo OMNI™ Enteral Feeding Pump will move a very small amount of feeding solution through the Kangaroo OMNI™ Feeding Set.

WARNING: When the pause duration ends, Kangaroo OMNI™ Enteral Feeding Pump will automatically restart feeding.

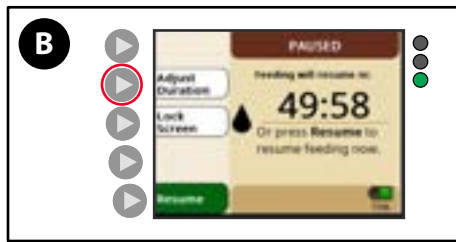
Note: The flow rate during the timed pause is 0.175 mL/hr for pause times greater than 30 minutes.

Note: The Timed Pause feature can be disabled through Biotech mode if users want to avoid its use.



A. Press the **Timed Pause** button. Default pause time is 5 minutes.

Note: An amber screen with a stationary droplet means the feeding is paused.



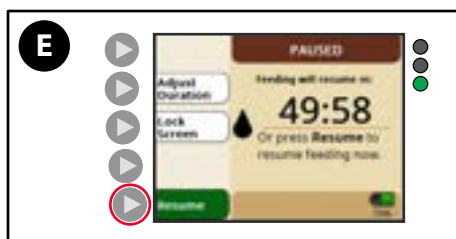
B. To adjust pause duration from 5 minutes, press the **Adjust Duration** button.



C. Press the + and – buttons to select the new duration.



D. Press the **OK** button to confirm the desired pause time. The Timed Paused screen will show a time countdown until the pause duration is complete.



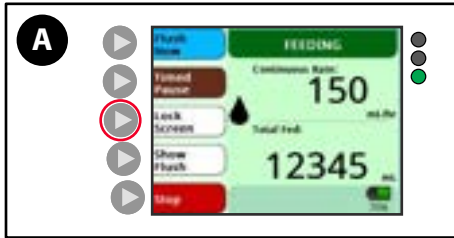
E. Press the **Resume** button to end the Timed Pause early and immediately resume feeding.

Additional Options

Lock / Unlock Input Screen

Kangaroo OMNI™ Enteral Feeding Pump allows the user to lock the input screen to prevent accidental button presses during portable use. This is especially helpful when transporting Kangaroo OMNI™ Enteral Feeding Pump in a backpack.

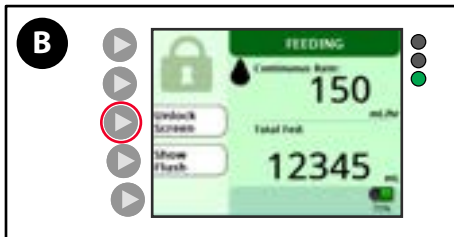
Lock Input Screen



- A. Press and hold the **Lock Screen** button for 5 seconds to lock the screen.

Note: A countdown will appear to show how long to hold the button. A lock symbol will appear on the Feeding screen once the lock screen has been activated and the buttons will be disabled.

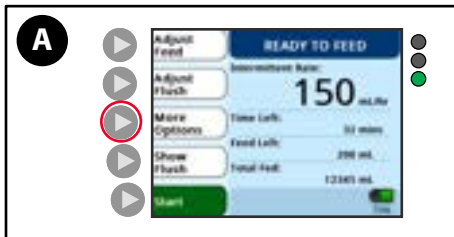
Unlock Input Screen



- B. To disable the Lock Screen and reactivate buttons, press and hold the **Unlock Screen** button for 5 seconds.

Note: A countdown will appear to show how long to hold the button. The lock symbol will disappear on the Feeding screen and buttons will be re-enabled.

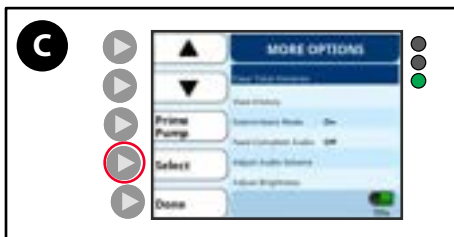
Access Additional Setup Options:



- A. Press the **More Options** button on the Ready to Feed or Set Loaded screen.



- B. Use the arrow keys to highlight the feature you want to activate.



- C. Press the **Select** button to activate the highlighted feature.

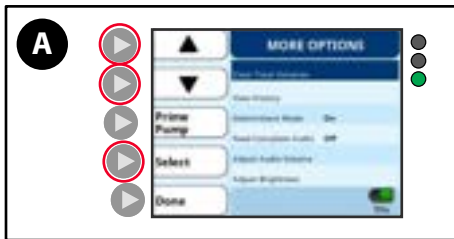
Additional Options



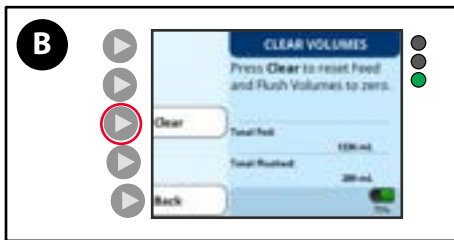
D. Press the **Done** button to return to Ready to Feed.

Clear Total Volume:

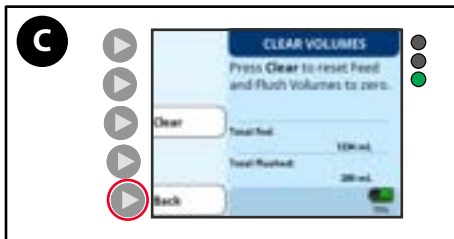
This feature resets the feeding and flushing counters to zero. Use for starting a new patient or a new feeding.



A. In the More Options screen, use the arrow keys to select **Clear Total Volumes**, and press the **Select** button.



B. Press the **Clear** button.



C. Press the **Back** button to return to More Options.

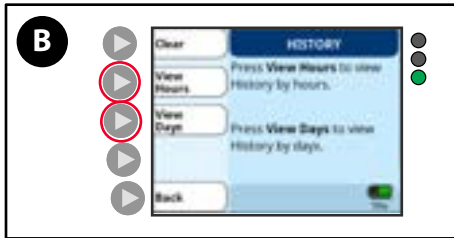
Additional Options

View History:

This feature retrieves Kangaroo OMNI™ Enteral Feeding Pump history for the last 30 days.



- A. In the More Options screen, use the arrow keys to select **View History**, and press the **Select** button.



- B. Press the **View Hours** button or the **View Days** button.



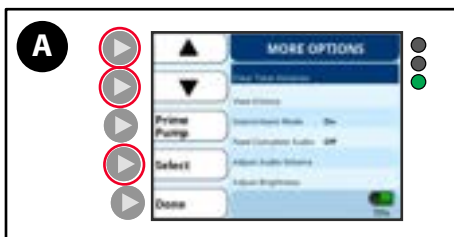
- C. Press the **Back** button to return to History.



- D. Press the **Back** button to return to More Options.

Adjust Audio Volume:

This feature sets the desired volume level for all alarms and notifications.



- A. In the More Options screen, use the arrow keys to select **Adjust Audio Volume**, and press the **Select** button.



- B. Press the + and – buttons to input the desired volume.

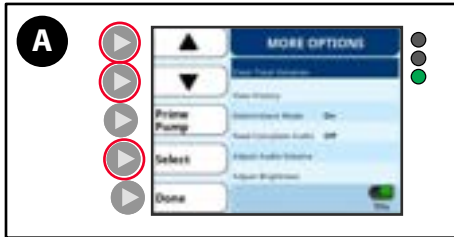
Additional Options



- C. Press the **OK** button to return to More Options.

Adjust Brightness:

This feature adjusts the brightness of the display backlight.



- A. In the More Options screen, use the arrow keys to select **Adjust Brightness**, and press the **Select** button.

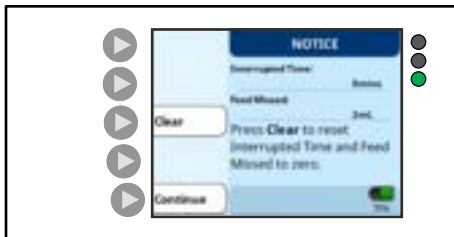


- B. Press the + and – buttons to input the desired brightness.



- C. Press the **OK** button to return to More Options.

Interruption Monitor Screen



Note: This screen will only appear if Interruption Monitor is enabled in the Biotech menu.

If a continuous feeding regimen has been configured, Kangaroo OMNI™ Enteral Feeding Pump can notify users of its non-feeding time. This feature is intended to assist practitioners of volume-based feeding. This NOTICE screen will be displayed if the pump has been turned off, stopped or flushing for longer than 30 minutes.

The Interrupted Time and Feed Missed totals will continue to accumulate until cleared by the user or the programmed feed rate is changed.

Note: A new message will appear after every additional 30 minutes of interrupted feed time.

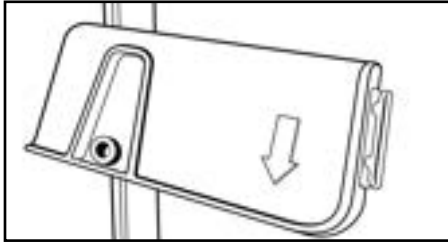
Cap Storage and Pole Clamp Setup

Using the ENFit™ Cap Storage Feature



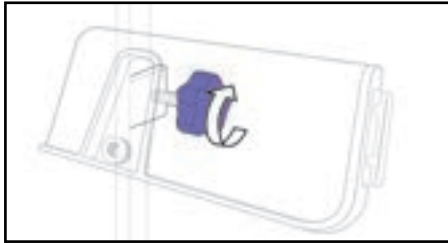
- A. Remove cap from tube connector.
- B. Secure cap while not in use.
- C. Replace cap on tube connector after disconnecting from patient.

Attach Adjustable Pole Clamp to IV Pole



CAUTION: When attaching Kangaroo OMNI™ Enteral Feeding Pump to the IV pole, take precautions to ensure the IV pole remains stable while in use.

- A. Place the inside elbow of the clamp against the IV pole.
- B. Turn the knob to the right to tighten the pole clamp against the IV pole so it is secure and does not slide down the pole.
- C. Rotate the plastic latch plate of the pole clamp so that the “slide and click” feature looks like an upside down letter “U” and the arrow is pointing down.



Attach Kangaroo OMNI™ Enteral Feeding Pump to Pole Clamp



- A. Place the back of Kangaroo OMNI™ Enteral Feeding Pump against the flat portion of the pole clamp latch plate. Line up the latch plate guide (upside down “U”).
- B. Slide Kangaroo OMNI™ Enteral Feeding Pump downward (while keeping contact with the guide) until you hear a positive “click”, indicating Kangaroo OMNI™ Enteral Feeding Pump is properly seated. To remove Kangaroo OMNI™ Enteral Feeding Pump, gently pull upward.

Note: The plastic retention plate can be rotated in 90 degree increments to allow for attachment to a horizontal tabletop surface or a horizontal bed rail. To rotate, grasp the latch plate and twist until the latch plate “pops” into the next angled position.

The plastic retention plate can also be tilted in 15 degree increments to allow the user to choose an optimum viewing angle.

Use the Adjustable Pole Clamp Tube Support Guide



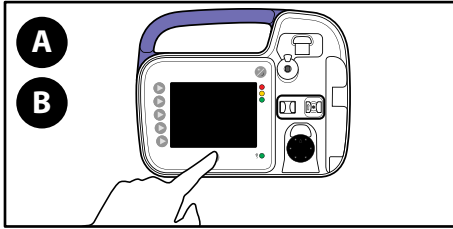
- A. Ensure the cassette is properly loaded.
- B. Select the tube that goes to the patient (tube exiting the right side of the cassette).
- C. Press the tubing into the tube guide creating a loop above Kangaroo OMNI™ Enteral Feeding Pump.
- D. Ensure that the loop has sufficient length to make a gradual curve.

Biotech Mode

Biotech Mode Settings

Biotech Mode is a menu location for certain Kangaroo OMNI™ Enteral Feeding Pump settings that are generally only changed by a biomedical technician. Settings in Biotech Mode include Lock Settings, Interruption Monitor, Timed Pause, and Language.

Access Biotech Mode



- A. Press the **Power** button to turn **off** Kangaroo OMNI™ Enteral Feeding Pump.
- B. Press the **Power** button to turn **on** Kangaroo OMNI™ Enteral Feeding Pump.

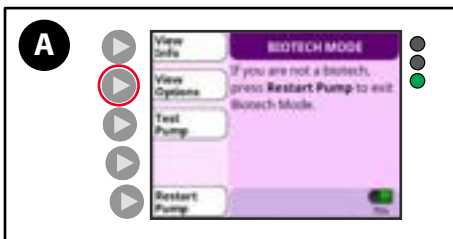


- C. Press and release the upper left arrow button during the introduction animation. Biotech Mode should now be visible.

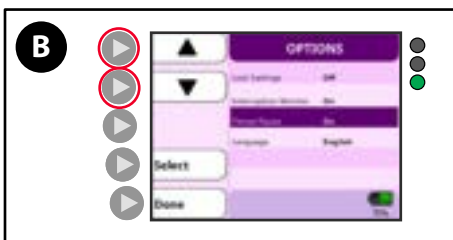


- D. Press the **View Info** button to see the device serial number, software version, and other important information about Kangaroo OMNI™ Enteral Feeding Pump.

Access Biotech Mode Options



- A. Press the **View Options** button to enter the feature selection screen.

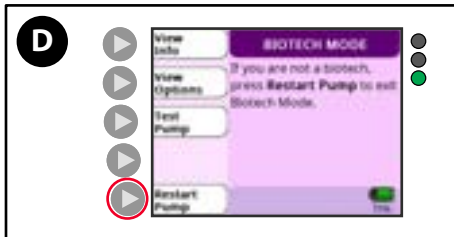


- B. Use the arrow buttons to highlight the feature you want to activate.

Biotech Mode



- C. Press the **Select** button to activate the highlighted feature, and then press **Done**.



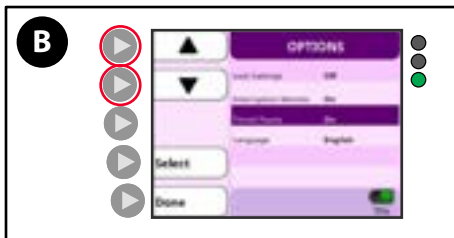
- D. Press the **Restart Pump** button to save the settings and exit Biotech mode.

Lock Settings

The Lock Settings feature disables the user input of Kangaroo OMNI™ Enteral Feeding Pump settings, allowing clinicians to ensure that settings do not change. This feature is commonly used for patients who are resistant to receiving feedings or to prevent young children from tampering with the settings during ambulatory use.



- A. Press **View Options** button.



- B. Use the arrow buttons to highlight **Lock Settings**.

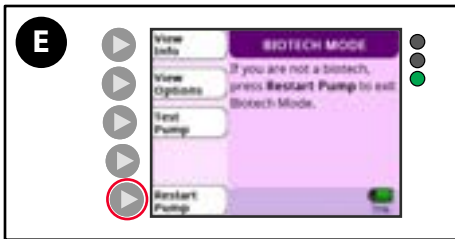
Biotech Mode



C. Press the **Select** button.



D. Press the **Done** button.



E. Press **Restart Pump** button to save the settings and exit Biotech mode. If a user attempts to modify any settings, a Settings Locked reminder screen will be displayed. The Lock Settings feature can only be disabled by entering Biotech Mode and switching Lock Settings to Off. When Lock Settings is enabled, a padlock symbol will be displayed on the icon bar to indicate that Kangaroo OMNI™ Enteral Feeding Pump settings have been locked.

Settings Locked Information Signal

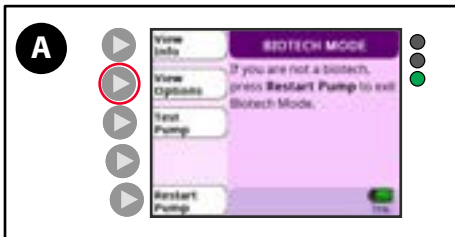


Pump Status indicator: blinking green 

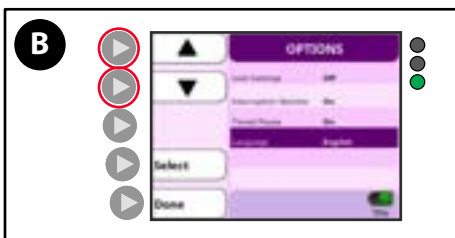
The SETTINGS LOCKED screen appears if the Lock Settings feature has been activated in Biotech Mode. No settings can be changed. To disable the Lock Settings, you must disable this feature in the Biotech mode. See above.

Language Setting

The Language Setting allows you to change the language used on Kangaroo OMNI™ Enteral Feeding Pump screen.

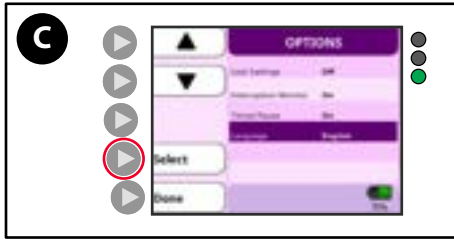


A. Press **View Options** button.



B. Use the arrow buttons to highlight **Language**.

Biotech Mode



C. Press the **Select** button.



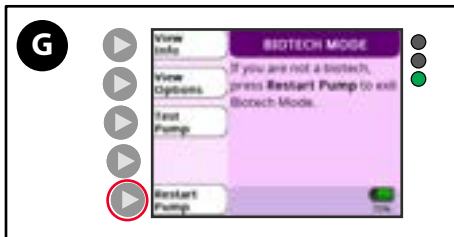
D. Use the arrow keys to select the desired language.



E. Press the **Select** button. A check mark should appear in the check box next to the desired language.



F. Press the **Back** button.



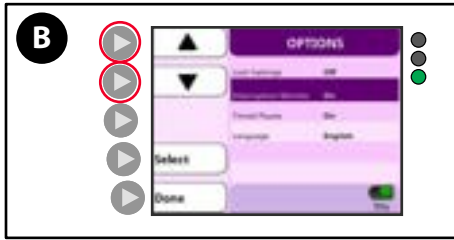
G. Press the **Restart Pump** button to save the settings and exit Biotech mode.

Biotech Mode

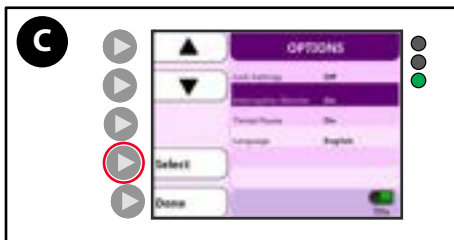
Interruption Monitor Settings



A. Press **View Options** button.



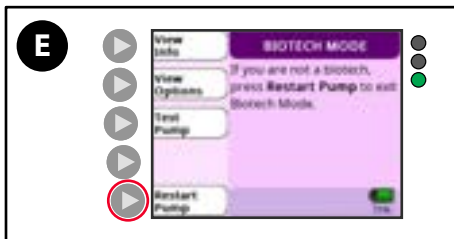
B. Use the arrow buttons to highlight **Interruption Monitor**.



C. Press the **Select** button to toggle between **On** or **Off**.

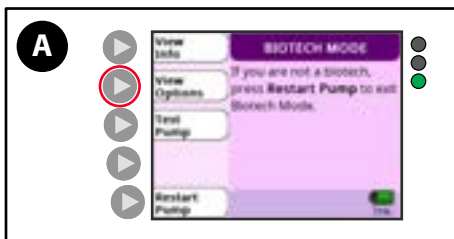


D. Press the **Done** button.



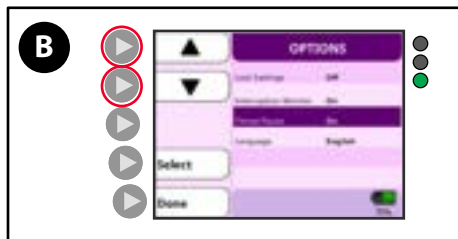
E. Press the **Restart Pump** button to save the settings and exit Biotech mode.

Timed Pause Setting

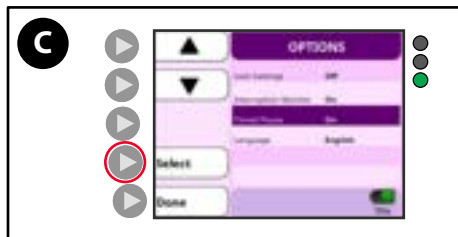


A. Press the **View Options** button.

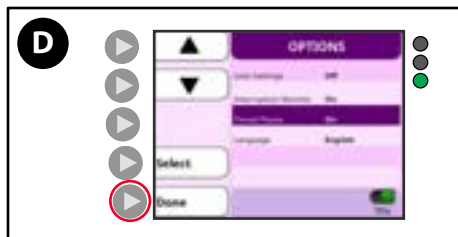
Biotech Mode



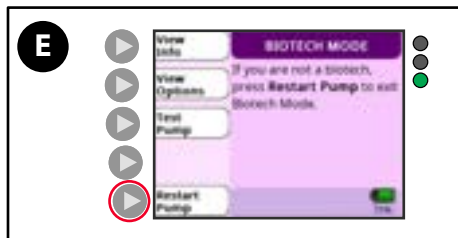
B. Use the arrow buttons to highlight **Timed Pause**.



C. Press the **Select** button to toggle between **On** or **Off**.



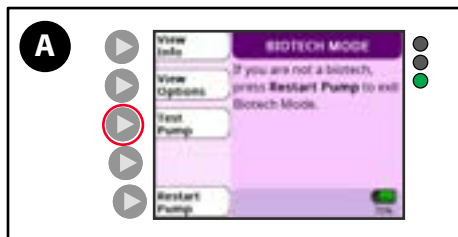
D. Press the **Done** button.



E. Press **Restart Pump** button to exit Biotech mode and return to normal operating mode.

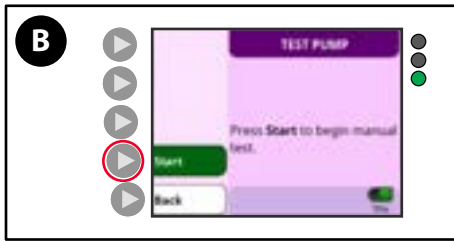
Manual Certification

The following procedure can be used to manually certify Kangaroo OMNI™ Enteral Feeding Pump. It is recommended to conduct a performance test every 2 years, or as recommended by facility protocol. Load a standard Kangaroo OMNI™ Feeding Set filled with at least 50 mL of water. The Kangaroo OMNI™ Feeding Set should be pre-primed, with water visible in the downstream tubing.

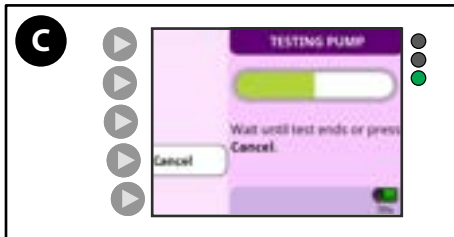


A. Press **Test Pump** button.

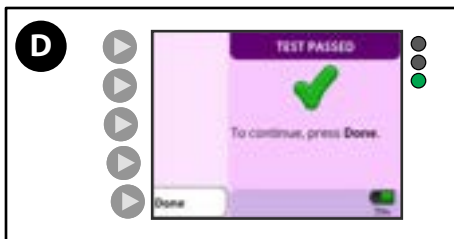
Biotech Mode



B. Press the **Start** button.



C. Follow the screen prompts as Kangaroo OMNI™ Enteral Feeding Pump tests its operating functions. Wait for the testing to complete.



D. "Test Passed" screen will appear when the performance test is complete.

Note: Contact Customer Service if you do not obtain a Test Passed result. Be sure to note the failure code on the screen.

Note: Upon successful completion of a Manual Certification, the Days Since Certification field in the Biotech Service Info screen will be reset to zero.

Cleaning

Caution: Kangaroo OMNI™ Enteral Feeding Pump, and power adapters are not designed to be immersed underwater. **Do not** immerse Kangaroo OMNI™ Enteral Feeding Pump, or power adapters in water or other cleaning solutions. Failure to follow the cleaning procedures described herein could result in hazards to users, patients, and clinicians. As with any A/C powered electrical device, care must be taken to prevent liquid from entering Kangaroo OMNI™ Enteral Feeding Pump to avoid electrical shock hazard, fire hazard, or damage to electrical components.

Caution: Disconnect Kangaroo OMNI™ Enteral Feeding Pump from A/C power source before thoroughly cleaning. After thoroughly cleaning, **do not** connect to an A/C power source until thoroughly dry.

Caution: User should not disassemble the device when cleaning.

If any of the following events occur, do not use Kangaroo OMNI™ Enteral Feeding Pump until it has been properly cleaned and dried. For assistance, please contact Customer Service.

- Wetting of the power adapter
- Leakage into Kangaroo OMNI™ Enteral Feeding Pump interior

General Cleaning Instructions

Cleaning should be performed as needed. It may also be desirable to define cleaning intervals based on knowledge of the environment in which the pump is used. Only personnel trained in the cleaning of medical devices should perform cleaning. A mild, common dish washing liquid detergent should be used for general cleaning. This detergent should be used with a 20:1 ratio water to detergent mixture.

Inspect the device for any visible soil immediately following usage and/or procedure. If visible soil is present, wipe down Kangaroo OMNI™ Enteral Feeding Pump with a paper towel moistened with the cleaning solution, removing all visible soil. Use a brush to remove soil from hard to reach crevices. **Users should inspect the device after cleaning for any visible soil to ensure the device is cleaned between uses. If soil is visibly present, repeat the cleaning steps before moving to disinfection instructions.** After thoroughly cleaning, store the pump and accessories in an area free of dirt, dust, pet hair, and other contaminants.

Caution: The use of cleaners and disinfectants other than the ones described in the instructions for use may cause significant damage to Kangaroo OMNI™ Enteral Feeding Pump and may void warranty.

Cleaning Frequency

It is recommended that Kangaroo OMNI™ Enteral Feeding Pump be thoroughly cleaned after each Kangaroo OMNI™ Enteral Feeding Set use for a minimum duration of 30 seconds, to prevent bacterial contamination. Further, failure to thoroughly clean Kangaroo OMNI™ Enteral Feeding Pump can interfere with the function of the Kangaroo OMNI™ Enteral Feeding Pump rotor and sensors, which can increase the occurrence of errors and warning alarms. See below for methods for cleaning each component. High frequency of cleaning or cleaning with severe chemicals can cause the plastic housing to crack or break. This can result in electric shock or other risks. **Do not** clean more than necessary to meet user/operator needs.

Instructions for Cleaning Kangaroo OMNI™ Enteral Feeding Pump

Pump Housing Cleaning

- Refer to General Cleaning Instructions above before starting.
- Thoroughly clean outside surface with a damp cloth or sponge using a mild detergent. Ensure all cleaning solution is rinsed or wiped from the device.
- For difficult to clean areas, it is permissible to wash Kangaroo OMNI™ Enteral Feeding Pump under running water. Avoid submerging Kangaroo OMNI™ Enteral Feeding Pump or washing with high pressure nozzles, which exceeds the water proof rating of the pump. Kangaroo OMNI™ Enteral Feeding Pump casing has a water proof rating of “water jet resistant”. This allows for washing under running water or wiping with a damp cloth.
- For excessive cleaning needs, avoid use of sharp objects during the cleaning process. Use of a soft bristle brush for example may be used.
- Users should inspect the device after cleaning for any visible soil to ensure the device is cleaned between uses. If soil is visibly present, repeat the cleaning steps before moving to disinfection instructions.

Cleaning

AC Adapter Cleaning

- Refer to General Cleaning Directions before starting.
- The AC adapter normally does not require cleaning. If soiling of the AC adapter is observed, unplug from outlet and wipe the exterior surfaces of the AC adapter with a non-abrasive dry or slightly damp cloth.
- Allow excess moisture to evaporate from the AC adapter prior to use.
Caution: Avoid exposing AC adapter to excess moisture, as this can lead to an electrical shock or fire hazard. The power adapter is rated IPX0 which is not water resistant.

Rotor Cleaning

- Refer to General Cleaning Directions before starting.
- Use a cotton swab to clean the rollers thoroughly with a solution of warm water and a mild dishwashing detergent.

Sensor Cleaning

- Use a damp cotton swab to clean the sensors and the pathway where the cassette is seated.

Disinfection

Caution: Avoid exposing the power adapter to excess moisture, as this can lead to an electrical shock or fire hazard.

General Disinfection Instructions

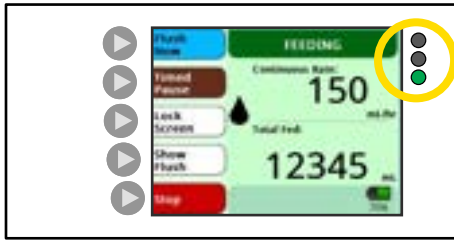
Kangaroo OMNI™ Enteral Feeding Pump can be disinfected by wetting its surfaces with 70% isopropyl alcohol. To wet the device, use at least two 70% isopropyl alcohol, lint-free wipes and wipe as necessary to maintain visual wetness. Visual wetness should be maintained for a minimum duration of 10 minutes or until dry, whichever is longer.

Alternatively, Kangaroo OMNI™ Enteral Feeding Pump can be disinfected by wetting its surfaces with 10% bleach solution. To wet the device, use sterile, lint-free wipes saturated with the solution and wipe as necessary to maintain visual wetness. Use additional fresh, sterile, lint-free wipes saturated with the solution as needed to keep the surface visually wet for a minimum duration of 10 minutes or until dry, whichever is longer.






Disinfection frequency: It is necessary to clean and disinfect Kangaroo OMNI™ Enteral Feeding Pump after each use when used for multiple patients. This is to prevent spreading bacteria, viruses, and other germs between patients interacting with the pump.

Alarms & Troubleshooting

LED Pump Alarm Indicator Lights



Kangaroo OMNI™ Enteral Feeding Pump status LED Indicator lights on the upper right of the pump screen provide a quick visual indication of Kangaroo OMNI™ Enteral Feeding Pump status.

-  Solid Green = Pump Running
-  Blinking Green = Ready
-  Solid Yellow = Information
-  Blinking Yellow = Notification
-  Blinking Red = CRITICAL ALARM

See the information below for detailed descriptions of each warning. If an unexpected operation or event occurs while using Kangaroo OMNI™ Enteral Feeding Pump, please report any findings to Customer Service.

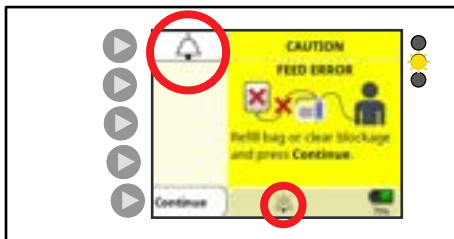
Alarms



WARNING: Ensure audio output opening is unobstructed during normal operation.

All alarms are intended to be heard by operators within range of the alarm speaker. The speaker is located on the back of Kangaroo OMNI™ Enteral Feeding Pump, and is designed to be heard within the patient's room. The display and LED alarm indicators are intended to be seen by an operator facing the front of Kangaroo OMNI™ Enteral Feeding Pump.

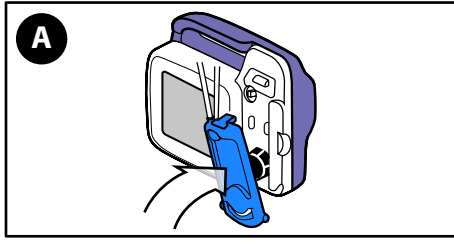
How to Temporarily Silence the Alarm



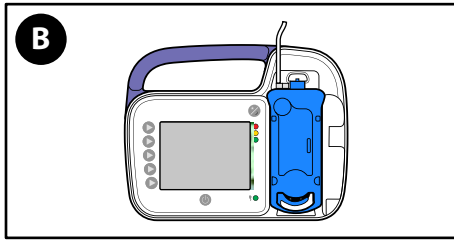
The alarms cannot be permanently silenced or muted. However, by pressing the Silence Alarm button, the alarm audio will be temporarily silenced for two minutes. After two minutes, the alarm audio will restart. To re-engage the audio alarm before the two minutes is up, press the Bell button. This will end the temporary audio pause, and restart the audible alarm.

Alarms & Troubleshooting

Verifying Functionality of the Alarm System



A. **Load a new Kangaroo OMNI™ Feeding Set** onto Kangaroo OMNI™ Enteral Feeding Pump.



B. Leave the Kangaroo OMNI™ Feeding Set empty.



C. Run **Auto Prime**.



D. Upon priming, Kangaroo OMNI™ Enteral Feeding Pump will detect a Feed Error condition and alarm.



E. **Confirm** the audible alarm, color display, and colored LEDs all properly indicate a Feed Error condition.

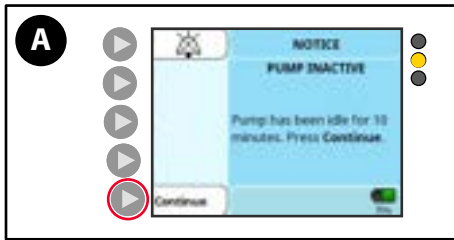
Alarms & Troubleshooting

Pump Inactive Alarm (Low Priority)



LED Pump Alarm Indicator Lights: Solid Yellow

PUMP INACTIVE error screen appears if Kangaroo OMNI™ Enteral Feeding Pump has been without input for more than 10 minutes.



A. Press **Continue** to return to the previous screen.

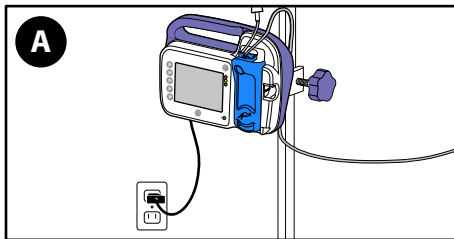
Low Battery Alarm Notice (Low Priority)



LED Pump Alarm Indicator Lights: Solid Yellow

The LOW BATTERY alarm appears when approximately 30 minutes of battery life is remaining.

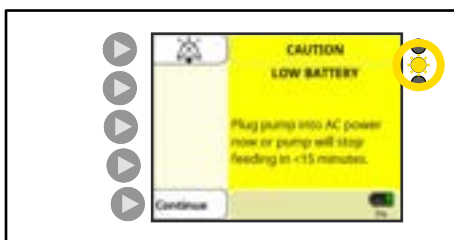
Note: Kangaroo OMNI™ Enteral Feeding Pump will continue to deliver fluid if this alarm occurs while feeding or flushing.



A. **Plug Kangaroo OMNI™ Enteral Feeding Pump into a wall outlet** for at least 12 hours to charge fully. Kangaroo OMNI™ Enteral Feeding Pump will automatically return to the screen that was active prior to the error and will continue to operate normally.

Note: If this alarm occurs while Kangaroo OMNI™ Enteral Feeding Pump is plugged in, ensure the power adapter plug is completely inserted into the power adapter port.

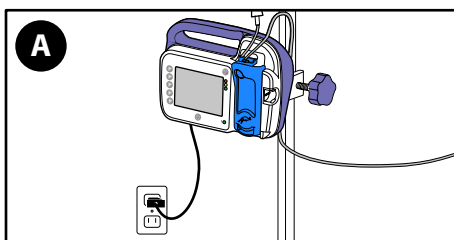
Low Battery Caution Alarm (Medium Priority)



LED Pump Alarm Indicator Lights: Blinking Yellow

The LOW BATTERY CAUTION alarm appears when approximately 15 minutes of battery life is remaining.

Note: Kangaroo OMNI™ Enteral Feeding Pump will continue to deliver fluid if this alarm occurs while feeding or flushing.



A. **Plug Kangaroo OMNI™ Enteral Feeding Pump into a wall outlet** for at least 12 hours to charge fully. Kangaroo OMNI™ Enteral Feeding Pump will automatically return to the screen that was active prior to the error and will continue to operate normally.

Note: If this alarm occurs while Kangaroo OMNI™ Enteral Feeding Pump is plugged in, ensure the power adapter plug is completely inserted into the power adapter port.

Alarms & Troubleshooting

Feed Error Alarm (Medium Priority)



LED Pump Alarm Indicator Lights: Blinking Yellow

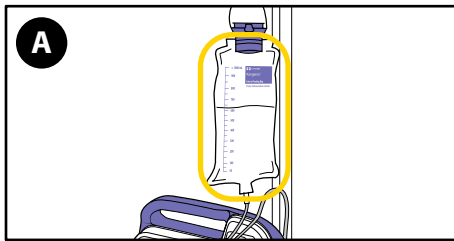
The FEED ERROR screen appears when the feed bag is empty or there is a clog, kink or excessive foam/bubbles in the tubing between the feed bag and the pump.

Detection of this alarm condition may take up to 40 minutes to occur at 1 mL/hr.

Detection of this alarm condition may take up to 5 minutes to occur at flow rates greater than 50 mL/hr.

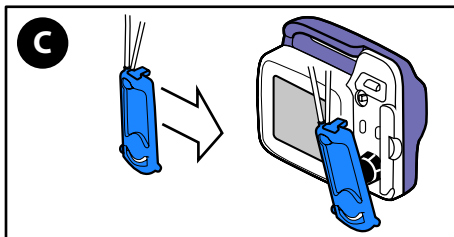
Sound Intensity of Alarm: minimum 45 dBA at 1 meter

A. If the enteral fluids bag is empty, **refill bag as necessary.**



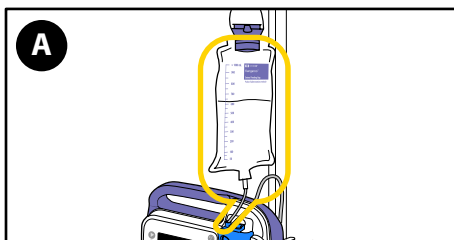
B. Press **Continue** and prime the pump to prepare for next feeding.

WARNING: Patient must not be connected to Kangaroo OMNI™ Enteral Feeding Pump when priming is performed.



C. If alarm continues, **replace Kangaroo OMNI™ Feeding Set.**

OR

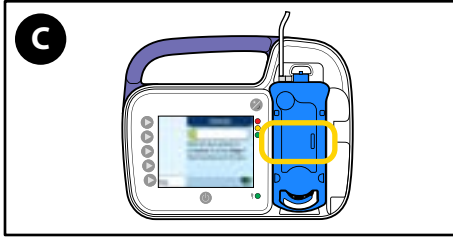


A. If the bag still contains feeding solution, check the bag and tubing for air bubbles or blockages.

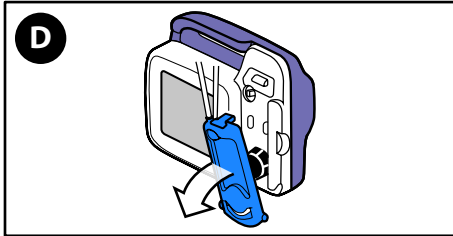


B. Press **Continue** and prime the pump to move the air bubbles or blockage through the tube. Disconnect patient from tubing before priming.

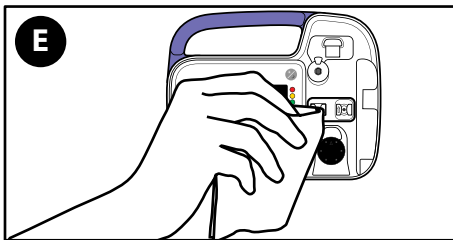
Alarms & Troubleshooting



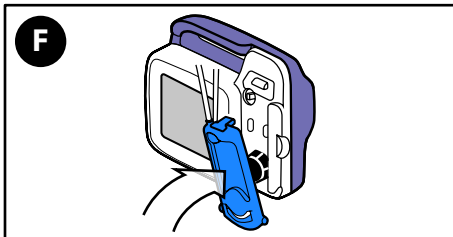
C. Once the air bubbles are out of the occlusion sensor region, restart feeding.



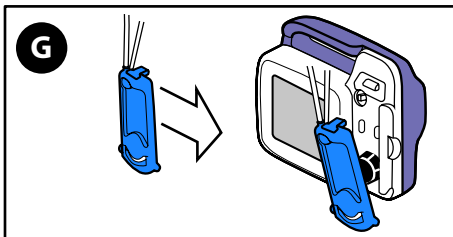
D. If alarm continues, **turn off pump** and **Remove** the cassette from Kangaroo OMNI™ Enteral Feeding Pump.



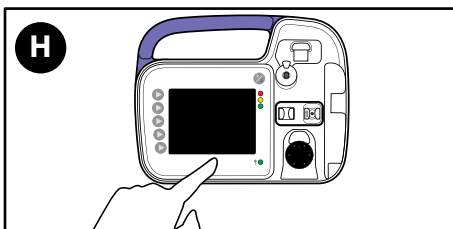
E. **Clean and dry** the Kangaroo OMNI™ Enteral Feeding Pump occlusion sensor region.



F. **Reload** the cassette.



G. If alarm continues, **replace Kangaroo OMNI™ Feeding Set.**



H. If alarm continues after replacing Kangaroo OMNI™ Feeding Set, press **Power Off** to stop operation and use a different Kangaroo OMNI™ Enteral Feeding Pump.

Alarms & Troubleshooting

Flush Error Alarm (Medium Priority)

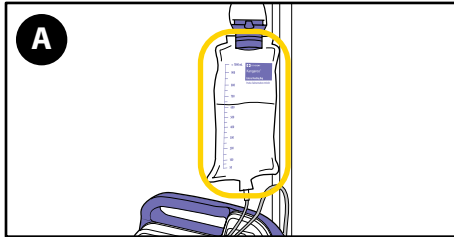


LED Pump Alarm Indicator Lights: Blinking Yellow

The FLUSH ERROR screen appears when the flush bag is empty or there is a clog or a kink in the tubing between the flush bag and the pump.

Detection of this alarm condition may take up to 1 minute to occur.

Sound Intensity of Alarm: minimum 45 dBA at 1 meter



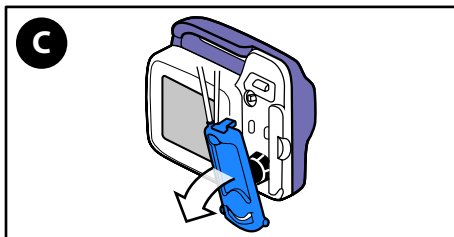
A. **Refill bag** as necessary.



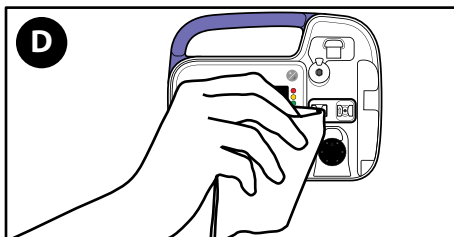
B. Press **Continue** and prime the pump to prepare for next flush. Disconnect patient from tubing before priming.

Please note: Always prime the flush tubing before the feed tubing when using Kangaroo OMNI™ Feed Sets with Flush Bags. Priming the flush tubing after priming the feed tubing will introduce air in the tubing after the feeding solution, which will require the feed tubing to be primed again to remove the air.

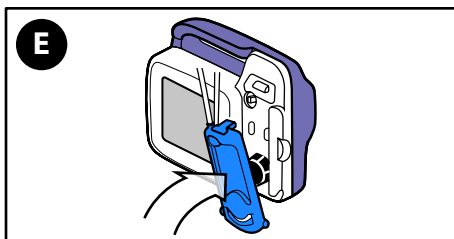
OR



C. If alarm continues, **turn off pump** and **Remove** the cassette from Kangaroo OMNI™ Enteral Feeding Pump.

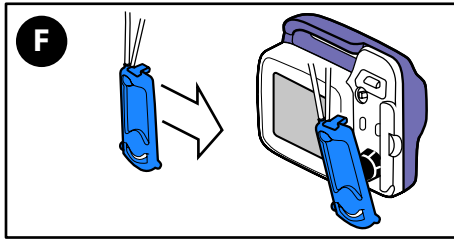


D. **Clean and dry** the Kangaroo OMNI™ Enteral Feeding Pump occlusion sensor region.

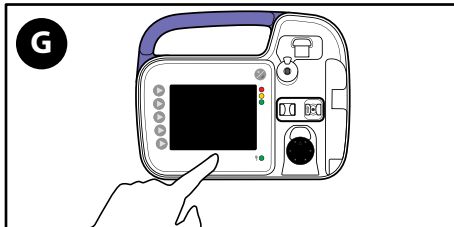


E. **Reload** the cassette.

Alarms & Troubleshooting

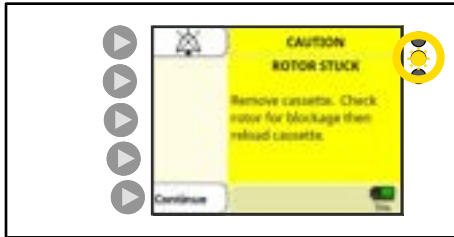


F. If alarm continues, **replace Kangaroo OMNI™ Feeding Set.**



G. If alarm continues after replacing Kangaroo OMNI™ Feeding Set, press **Power Off** to stop operation and use a different Kangaroo OMNI™ Enteral Feeding Pump.

Rotor Stuck Alarm (Medium Priority)



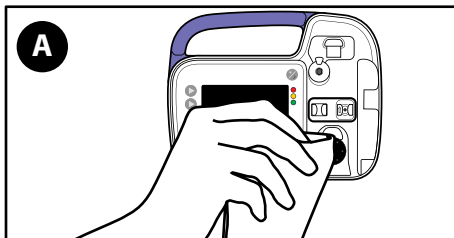
LED Pump Alarm Indicator Lights: **Blinking Yellow**

The ROTOR STUCK alarm appears when Kangaroo OMNI™ Enteral Feeding Pump detects an unusual amount of resistance on the rotor, typically caused by enteral fluids or contaminant build-up.

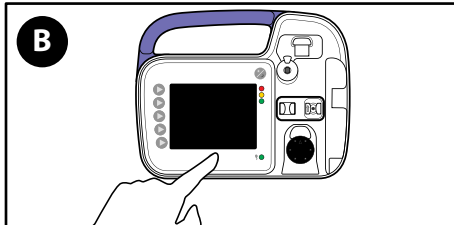
Detection of this alarm condition may take up to 2 minutes to occur.

Sound Intensity of Alarm: minimum 45 dBA at 1 meter

WARNING: Do not clean while plugged into an electrical outlet.



A. Clean the rotor by wiping it down with a wet cloth.



B. If alarm continues, press Power Off to stop operation and use a different Kangaroo OMNI™ Enteral Feeding Pump.

Alarms & Troubleshooting

Patient Tube Blocked Alarm (Medium Priority)



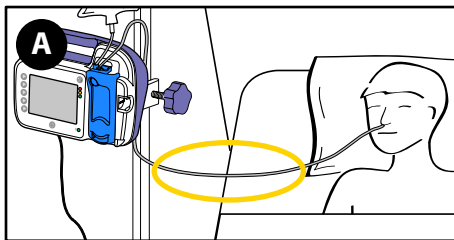
Pump Status Indicator: **Blinking Yellow** ☀️

The PATIENT TUBE BLOCKED alarm appears when the feeding solution is no longer being delivered because of a clog between Kangaroo OMNI™ Enteral Feeding Pump and the patient.

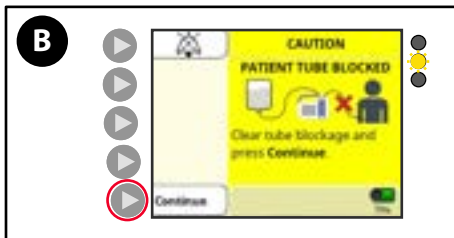
Detection of this alarm condition may take up to 40 minutes to occur at 1 mL/hr.

Detection of this alarm condition may take up to 3 minutes to occur at flow rates greater than 50 mL/hr.

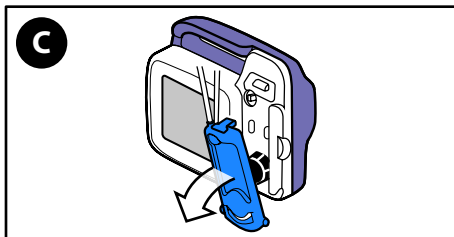
WARNING: Do not clean while plugged into an electrical outlet.



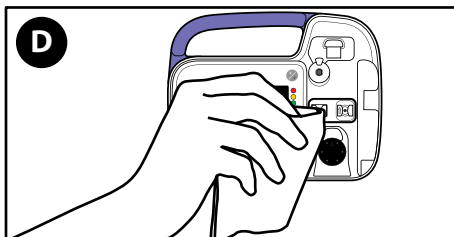
A. **Check tubing between Kangaroo OMNI™ Enteral Feeding Pump and patient** to locate the cause of the blockage and clear if possible.



B. Once blockage is cleared, press **Continue** and restart feeding.

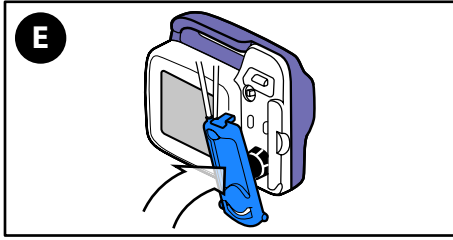


C. If alarm continues, **Remove** the cassette from Kangaroo OMNI™ Enteral Feeding Pump.



D. **Clean and dry** the Kangaroo OMNI™ Enteral Feeding Pump occlusion sensor region.

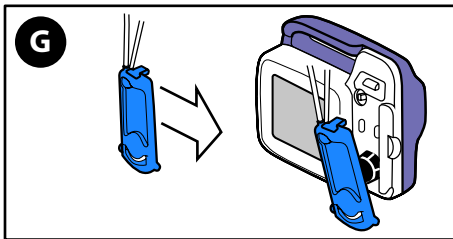
Alarms & Troubleshooting



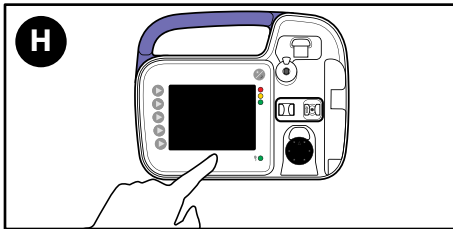
E. **Reload** the cassette.



F. Press **Continue** and restart feeding.



G. If alarm continues, **Replace** Kangaroo OMNI™ Feeding Set.



H. If alarm continues after replacing Kangaroo OMNI™ Feeding Set, press **Power Off** to stop operation and use a different Kangaroo OMNI™ Enteral Feeding Pump.

Alarms & Troubleshooting

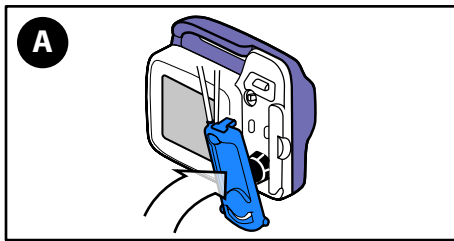
Cassette Dislodged Alarm (Medium Priority)



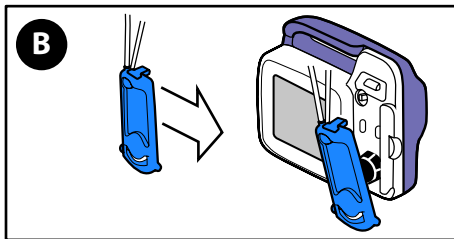
Pump Status Indicator: Blinking Yellow

The CASSETTE DISLODGED alarm appears when the cassette is not properly loaded in Kangaroo OMNI™ Enteral Feeding Pump.

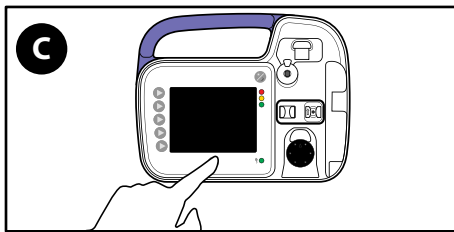
Detection of this alarm condition may take up to 1 second to occur at all flow rates.



A. **Reload cassette** and press continue.

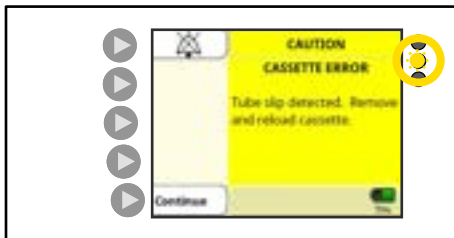


B. If alarm continues, **Replace** Kangaroo OMNI™ Feeding Set.



C. If alarm continues after replacing Kangaroo OMNI™ Feeding Set, press **Power Off** to stop operation and use a different Kangaroo OMNI™ Enteral Feeding Pump.

Cassette Error Alarm (Medium Priority)

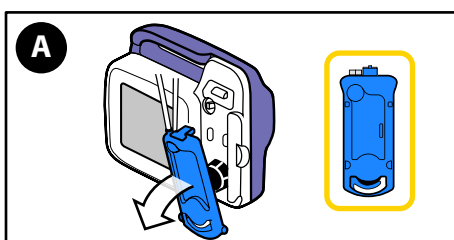


Pump Status Indicator: Blinking Yellow

The CASSETTE ERROR alarm appears when Kangaroo OMNI™ Enteral Feeding Pump has detected an unusual operating condition.

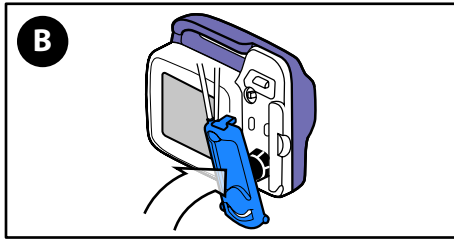
Detection of this alarm condition may take up to 31 minutes to occur at 1 mL/hr.

Detection of this alarm condition may take up to 1 minute to occur at flow rates greater than 50 mL/hr.s.

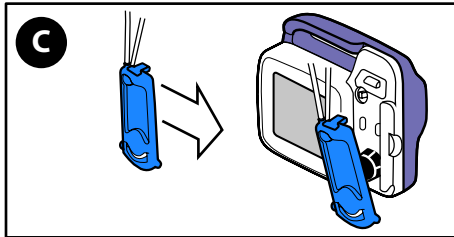


A. **Remove** the cassette and inspect it for irregularities.

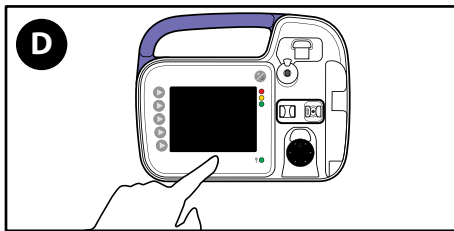
Alarms & Troubleshooting



B. After correcting irregularities, **Reload** the cassette.



C. If alarm continues, **Replace** Kangaroo OMNI™ Feeding Set.



D. If alarm continues after replacing Kangaroo OMNI™ Feeding Set, press **Power Off** to stop operation and use a different Kangaroo OMNI™ Enteral Feeding Pump.

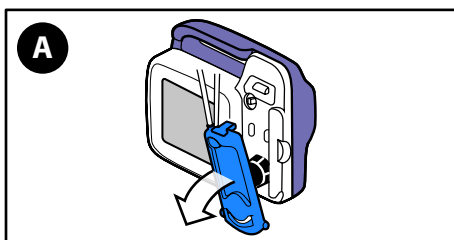
Valve Error Alarm (Medium Priority)



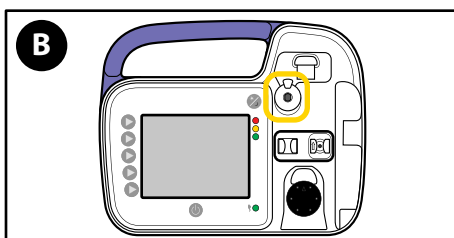
Pump Status Indicator: Blinking Yellow

The VALVE ERROR alarm appears when Kangaroo OMNI™ Enteral Feeding Pump detects an unusual amount of resistance on the valve actuator or the valve actuator is not correctly oriented.

Detection of this alarm condition may take up to 10 seconds.

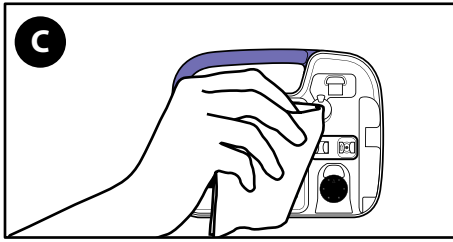


A. **Remove** the cassette.

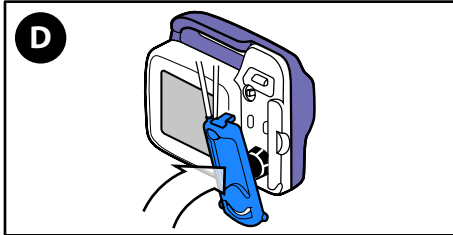


B. **Check** the valve actuator for blockages and **confirm** the valve actuator is correctly oriented.

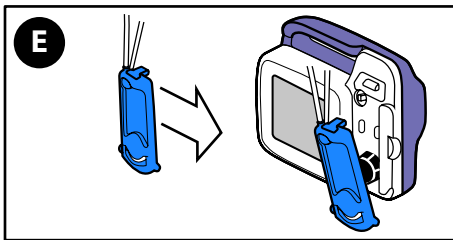
Alarms & Troubleshooting



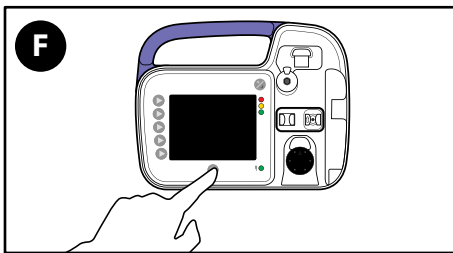
C. **Clean and dry** the Kangaroo OMNI™ Enteral Feeding Pump valve actuator.



D. **Reload** the cassette.



E. If alarm continues, **Replace** Kangaroo OMNI™ Feeding Set.



F. If alarm continues after replacing Kangaroo OMNI™ Feeding Set, press **Power Off** to stop operation and use a different Kangaroo OMNI™ Enteral Feeding Pump.

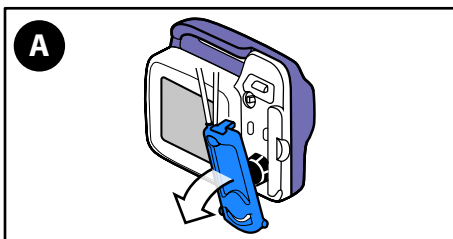
Sensor Error 1 Alarm (Medium Priority)



Pump Status Indicator: **Blinking Yellow** ☀️

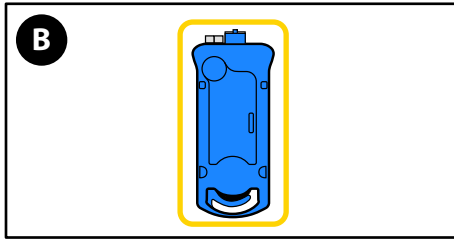
The SENSOR ERROR 1 alarm appears when Kangaroo OMNI™ Enteral Feeding Pump detects an issue with the occlusion detection sensor.

Detection of the Sensor Error 1 alarm condition pertaining to the ultrasonic sensor may take up to 10 minutes to occur. The pump is designed to detect degradation of sensors. If sensors degrade below acceptable levels, a Sensor Error will result.

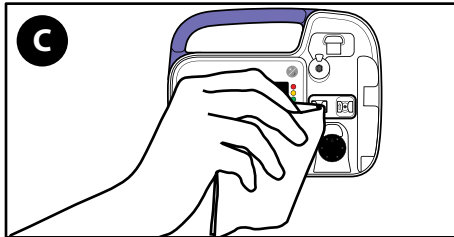


A. **Remove** the cassette.

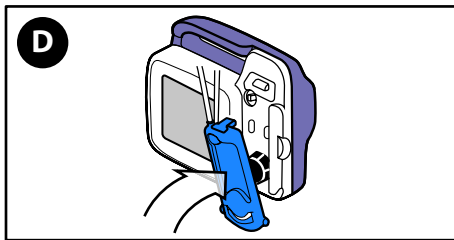
Alarms & Troubleshooting



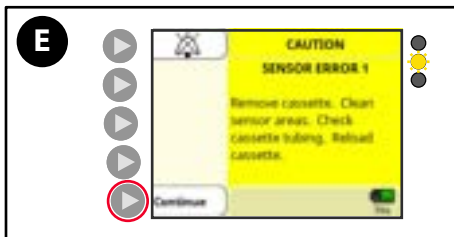
B. **Check** the tubing inside the cassette to ensure that it is free from lint or other debris.



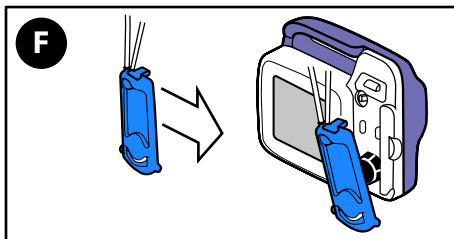
C. **Clean and dry** the Kangaroo OMNI™ Enteral Feeding Pump occlusion sensor region. For excessive cleaning needs, avoid use of sharp objects during the cleaning process. Use of a soft bristle brush for example may be used.



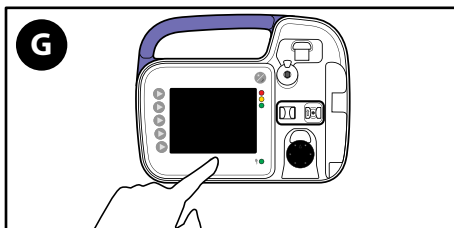
D. **Reload** the cassette.



E. Press **Continue** and restart feeding.



F. If alarm continues, **Replace** Kangaroo OMNI™ Feeding Set.



G. If alarm continues after replacing Kangaroo OMNI™ Feeding Set, press **Power Off** to stop operation and use a different Kangaroo OMNI™ Enteral Feeding Pump.

Alarms & Troubleshooting

Sensor Error 2 or 3 Alarm (Medium Priority)

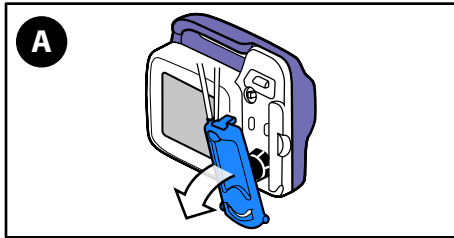


Pump Status Indicator: Blinking Yellow

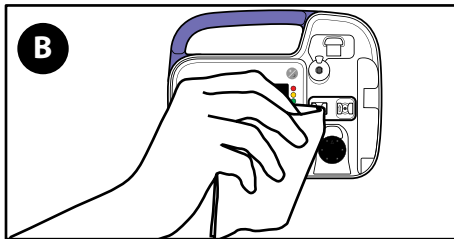
The SENSOR ERROR 2 or 3 alarm appears when Kangaroo OMNI™ Enteral Feeding Pump detects an issue with its force sensor.

Detection of this alarm condition will occur immediately on power up or cassette removal.

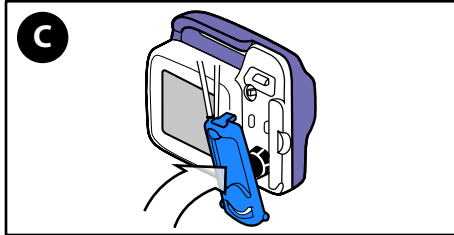
The Kangaroo OMNI™ pump is designed to detect degradation of sensors. If sensors degrade below acceptable levels, a Sensor Error will result.



A. **Remove** the cassette.



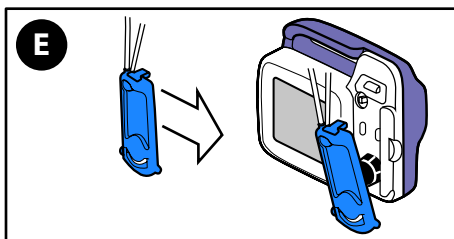
B. **Clean and dry** the Kangaroo OMNI™ Enteral Feeding Pump occlusion sensor region.



C. **Reload** the cassette.

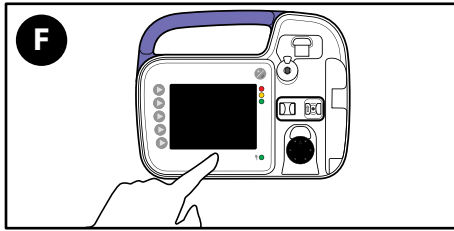


D. Press **Continue** and restart feeding.



E. If alarm continues, **Replace** Kangaroo OMNI™ Feeding Set.

Alarms & Troubleshooting



F. If alarm continues after replacing Kangaroo OMNI™ Feeding Set, press **Power Off** to stop operation and use a different Kangaroo OMNI™ Enteral Feeding Pump.

Dead Battery Error Alarm (High Priority)

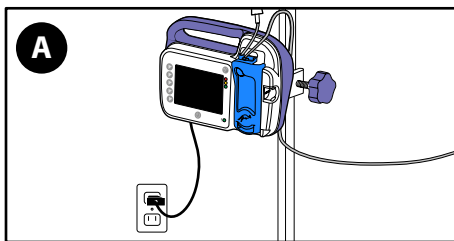


Pump Status Indicator: Blinking Red 

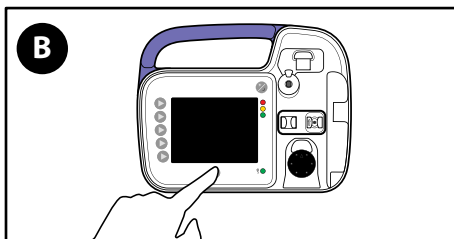
A DEAD BATTERY WARNING will appear when failure of the battery is imminent.

Detection of this alarm condition may take up to 20 minutes to occur under normal operating conditions.

Note: Kangaroo OMNI™ Enteral Feeding Pump will stop delivering fluid if this alarm occurs while feeding or flushing.



A. **Plug Kangaroo OMNI™ Enteral Feeding Pump into a wall outlet immediately.**



B. Pump operation will need to be restarted.

System Error Alarm (High Priority)



Pump Status Indicator: Blinking Red 

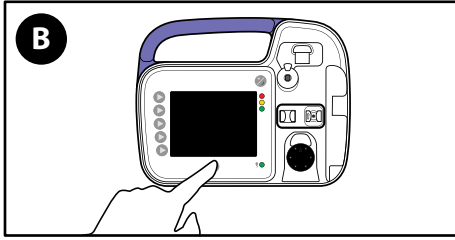
The SYSTEM ERROR appears when there is a general error in the system.

Detection of this alarm condition may take up to 1 minute to occur under normal operating conditions. Restart the feeding pump as directed on the screen.



A. If error persists **after** pump is turned off and back on, document the number code on the screen and call Customer Service.

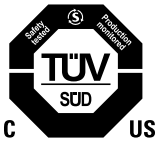
Alarms & Troubleshooting



B. Press **Power OFF**.

C. **Contact Customer Service** and provide the three number code displayed on the screen.

Specifications



Medical Equipment

Kangaroo OMNI™ Enteral Feeding Pump

- (1) Classified with respect to electrical shock, fire, and mechanical hazards in accordance with ES60601-1 (3rd edition) and UL60601-1 (2nd edition).
- (2) Classified with respect to electrical shock, fire, mechanical and other specified hazards in accordance with CAN/CSA C22.2 No. 601.1

Type Infusion Device

Volumetric Enteral

Kangaroo OMNI™ Enteral Feeding Pump Pumping Mechanism

Rotary Peristaltic

Lifetime of Device

Kangaroo OMNI™ Enteral Feeding Pump, and accessories are designed to provide a minimum of 5 years of service life.

Feeding Sets

Only Kangaroo OMNI™ Feeding Sets are designed to operate with the Kangaroo OMNI™ Enteral Feeding Pump.

Feeding Enteral Fluids Delivery Rate

Standard Feeding Mode: 1-400 mL/hr in 1 mL increments

Bolus Max Rate (Standard Mode Only): 800 mL/hr

Maximum Unintended Bolus at the 50 mL/hr Intermediate Rate: 0.312 mL

Thick Formula Mode: 1-200 mL/hr in 1 mL increments

Flush Rate: 875 mL/hr

Priming Rate

875 ± 90 mL/hr

Feed Volume

1 - 3000 mL in 1 mL increments

Flush Volume

1-500 mL in 1 mL increments

Number of Feeds

1 - 99

Feed/Flush Intervals

1-24 hours in 1-hour increments

Accuracy

Standard Formula Kangaroo OMNI™ Feeding Sets Standard Rates: ± 5% or 0.5 mL/hr, whichever is larger.

Note: The amount of water collected in 30 minutes will be half of the value programmed for the hourly flow rate, within ± 5%, or 0.5 mL, whichever is larger.

Rate Set Amount Expected in 30 Minutes: 125 mL/hr 59.37 mL – 65.63 mL

Standard Formula Kangaroo OMNI™ Feeding Sets (Bolus Max Rate): ±10% or 1.0 mL/hr, whichever is larger.

Thick Formula Kangaroo OMNI™ Feeding Sets: ±10% or 1.0mL/hr, whichever is larger.

Specifications

Note: The amount of water collected in 30 minutes will be half of the value programmed for the hourly flow rate, within $\pm 10\%$, or 1.0 mL, whichever is larger.

Rate Set Amount Expected in 30 Minutes: 125 mL/hr 56.25 mL – 68.75 mL

Flush Accuracy (all Kangaroo OMNI™ Feed/Flush Sets) : $\pm 10\%$

It is commonly understood that viscosity of fluid can impact delivery performance and typically thicker fluids will under deliver when compared to water.

The top of the fluid column should be at a starting height of 25.4 cm (10 in.) ± 0.76 cm (0.3 in.) above the top of Kangaroo OMNI™ Enteral Feeding Pump. Accuracy testing is run at a room temperature of $22^{\circ}\text{C} \pm 2^{\circ}\text{C}$ ($72^{\circ}\text{F} \pm 3^{\circ}\text{F}$), using a new Kangaroo OMNI™ Feeding Set for no longer than the recommended hours of usage. Confirmation of accuracy is conducted per the IEC 60601-2-24 standard for Infusion Devices, as applicable for enteral feeding. For more information on Kangaroo OMNI™ Enteral Feeding Pump accuracy, see Appendix A.

Occlusion Pressure

Maximum Occlusion Pressure: 16 psi (110 kPa)

Dimensions

Height: 14.0 cm (5.5 in.) Width: 17.2 cm (6.8 in.) Depth: 6.6 cm (2.6 in.)

Weight

0.53 kg (1.2 lbs), 0.70 kg (1.5 lbs) with pole clamp

Material

Soft-Touch Coating: Latex-Free Thermoplastic Urethane

Kangaroo OMNI™ Enteral Feeding Pump Housing: Flame resistant Polyester/Polycarbonate blend

High Priority Alarm Volume

54 to 68 dBA at 1 meter

Medium Priority Alarm Volume

53 to 67 dBA at 1 meter

Low Priority Alarm Volume

46 to 61 dBA at 1 meter

Operating Temperature for All System Components

5° to 40° C (41° to 104° F)

Operating Humidity for All System Components

15% to 93% R.H. non-condensing

Packaged Storage and Transport Temperature for All System Components

0° to 50° C (32° to 122° F) <93% R.H. non-condensing

Unpackaged Storage and Transport Temperature for All System Components

Store between 0° to 50° C (32° F to 122° F) at < 93% R.H. (non-condensing); Excursions permitted to -25° C for up to 24 hours.

Kangaroo OMNI™ Enteral Feeding Pump requires 25 minutes to warm up to its normal operating temperature from low storage temperatures.

Kangaroo OMNI™ Enteral Feeding Pump requires 6 minutes to cool down to its normal operating temperature from high storage temperatures.

Do not operate until Kangaroo OMNI™ Enteral Feeding Pump is within its operating temperature range.

Specifications

Ambient Air Pressure

Transport, storage, and operating atmospheric pressure range from 62 kPa to 106 kPa.

Maximum Altitude

The maximum altitude for using Kangaroo OMNI™ Enteral Feeding Pump is 4000 m. Be sure to meet ambient air pressure and battery charging limits stated in this manual.

The Maximum Infusion pressure is: 25 psi (172 KPa)

Type of Protection against Electrical Shock

Class II, Internally-powered Equipment

Degree of Protection against Electrical Shock

Type BF

Mode of Operation

Continuous or Intermittent Feed

Degree of Protection against Ingress of Fluids

Kangaroo OMNI™ Enteral Feeding Pump: Water-jet proof (IP26) per IEC 60529

AC Power Adapter: No protection against fluid ingress (IPX0)

Power

Caution: Use only Kangaroo OMNI™ Enteral Feeding Pump power adapter when powering Kangaroo OMNI™ Enteral Feeding Pump with power from an A/C outlet.

The specifications for the Kangaroo OMNI™ Enteral Feeding Pump power adapter are as follows:

- Input: 100-240 V~, 50-60 Hz, 1.0A (1.0 A – 0.5 A)
- Output: +5 V, 4.0 A

Battery

At around 30 minutes prior to complete battery discharge, a Low Battery alarm will occur. The Low Battery alarm will continue every ten minutes before the battery goes dead. Three minutes before the battery loses charge, you will be alerted by a Dead Battery alarm. Upon receiving either alarm, be sure to plug Kangaroo OMNI™ Enteral Feeding Pump into the nearest power outlet to ensure continued Kangaroo OMNI™ Enteral Feeding Pump operation. If powering Kangaroo OMNI™ Enteral Feeding Pump from an A/C outlet does not restore charge to the battery pack, the battery pack is no longer functional and should be replaced by a qualified technician. Please contact Customer Service for servicing a dead battery.

The battery will charge continuously whenever Kangaroo OMNI™ Enteral Feeding Pump is plugged into a wall outlet. 12 hours of charging is required to fully recharge the battery pack.

Note: Kangaroo OMNI™ Enteral Feeding Pump can continue to be used in normal operation while the battery is recharging. The expected service life of the Kangaroo OMNI™ Enteral Feeding Pump battery is a minimum of 3 years of life, depending on usage. As with all rechargeable batteries, a high number of charge/discharge cycles or high temperature usage will result in some reduction in battery life. The specifications for the battery pack inside Kangaroo OMNI™ Enteral Feeding Pump are as follows:

- Lithium-Ion Rechargeable Battery Pack
- Nominal Voltage = 3.69 V
- Charge Voltage = 4.20 V
- Maximum Charge Current = 1440 mA
- Maximum Discharge Current = 960 mA
- Nominal Capacity: 4950 mAh

Specifications

Alarms

System Error

Dead Battery

Valve Error

Rotor Stuck

Cassette Dislodged

Cassette Error

Sensor Error (1 - 3)

Patient Tube Blocked

Feed Error

Flush Error

Low Battery Caution

Low Battery Notice

Pump Inactive

Notifications

Feed Complete

Feed Incomplete

Settings Locked

Customer Service

The circuitry of Kangaroo OMNI™ Enteral Feeding Pump should not be repaired or serviced by a customer. Electronic assembly rework by unauthorized technicians can affect accuracy or alarm operation and void the product warranty.

All service personnel must be properly trained and qualified with operation of Kangaroo OMNI™ Enteral Feeding Pump. Improper service may impair operation of Kangaroo OMNI™ Enteral Feeding Pump.

Return for Repair

1. Call Customer Service for an Authorized Return Number and shipping instructions, using the appropriate phone number below.
2. Only send the item needing repair. Pack the device carefully and ship the insured parcel to your local service center:

United States

Phone: 1-800-964-5227

Canada

Phone: 1-888-291-5033

Outside of U.S. and Canada

Visit <https://www.cardinalhealth.com>

For a patient/user/third party in the European Union and in countries with identical regulatory regime (Regulation 2017/745/EU on Medical Devices); if, during the use of Kangaroo OMNI™ Enteral Feeding Pump or as a result of its use, a serious incident has occurred, please report it to the manufacturer and/or its authorized representative and to your national authority.

Maintenance

Pump Maintenance

Warning: Do not attempt to perform service or maintenance when the Kangaroo OMNI™ Enteral Feeding Pump is in use.

Warning: Do not open the Kangaroo OMNI™ Enteral Feeding Pump housing. There are no user-serviceable parts inside. Opening of device may affect device function and void the warranty.

Kangaroo OMNI™ Enteral Feeding Pump is equipped with tamper protection. The pump may cease to function if opened.

It is recommended that Kangaroo OMNI™ Enteral Feeding Pump be cleaned after each Kangaroo OMNI™ Feeding Set use. Refer to the Cleaning section for details on how to appropriately clean the pump. Key focus areas for cleaning are the valve actuator, occlusion sensor and pump rotor. The rollers on the rotor should spin freely.

The Kangaroo OMNI™ Enteral Feeding Pump may be periodically tested to assure proper functioning and safety. Refer to Manual Certification within the BioTech Mode section. It is recommended to conduct the performance test every 2 years, or as recommended by facility protocol. This testing may be performed by a qualified Biomedical Engineering Department, an outside service, or by Cardinal Health Factory Service.

If the pump malfunctions during use or fails the manual certification test, please contact your Cardinal Health representative or call Customer Service for further instruction.

Accessory Maintenance

The accessories for the Kangaroo OMNI™ Enteral Feeding Pump are not user serviceable. If an accessory malfunctions during use, please contact your Cardinal Health representative or call Customer Service for further instruction.

Kangaroo OMNI™ Item Codes

Depending on regional availability, the following item numbers can be used for ordering Kangaroo OMNI™ Enteral Feeding Pumps, feeding sets, or accessory components:

SKU	DESCRIPTION	TYPE	STERILE
B5FD	Kangaroo OMNI™ Feeding Set	500 mL	
E5FD	Kangaroo OMNI™ ENTelliSet™ Feeding Set	500 mL	
B10FD	Kangaroo OMNI™ Feeding Set	1000 mL	
E10FD	Kangaroo OMNI™ ENTelliSet™ Feeding Set	1000 mL	
BSPFD	Kangaroo OMNI™ Feeding Set with ENPlus Spike		
ESPFD	Kangaroo OMNI™ ENTelliSet™ Feeding Set with ENPlus Spike		
B5FDS	Kangaroo OMNI™ Feeding Set	500 mL	Sterile
E5FDS	Kangaroo OMNI™ ENTelliSet™ Feeding Set	500 mL	Sterile
B10FDS	Kangaroo OMNI™ Feeding Set	1000 mL	Sterile
E10FDS	Kangaroo OMNI™ ENTelliSet™ Feeding Set	1000 mL	Sterile
B16FDS	Kangaroo OMNI™ Feeding Set	1600 mL	Sterile
E16FDS	Kangaroo OMNI™ ENTelliSet™ Feeding Set	1600 mL	Sterile
BSPFDS	Kangaroo OMNI™ Feeding Set with ENPlus Spike		Sterile
ESPFDS	Kangaroo OMNI™ ENTelliSet™ Feeding Set with ENPlus Spike		Sterile
B31FDS	Kangaroo OMNI™ Feeding Set with ENPlus 3 in 1		Sterile
E31FDS	Kangaroo OMNI™ ENTelliSet™ Feeding Set with ENPlus 3 in 1		Sterile
BSP2FDS	Kangaroo OMNI™ Feeding Set with Dual ENPlus Spike		Sterile
ESP2FDS	Kangaroo OMNI™ ENTelliSet™ Feeding Set with Dual ENPlus Spike		Sterile
RTHFD	Kangaroo OMNI™ RTH Feeding Set (Japan only)		
ER100S	Kangaroo OMNI™ Burette ENTelliSet™ Feeding Set	100mL	Sterile
B5FF	Kangaroo OMNI™ Feeding Set with Flush Bag	500 mL	
E5FF	Kangaroo OMNI™ ENTelliSet™ Feeding Set with Flush Bag	500 mL	
B10FF	Kangaroo OMNI™ Feeding Set with Flush Bag	1000 mL	
E10FF	Kangaroo OMNI™ ENTelliSet™ Feeding Set with Flush Bag	1000 mL	
BSPFF	Kangaroo OMNI™ Feeding Set with Flush Bag and ENPlus Spike	1000 mL	
ESPFF	Kangaroo OMNI™ ENTelliSet™ Feeding Set with Flush Bag and ENPlus Spike	1000 mL	
B10FFS	Kangaroo OMNI™ Feeding Set with Flush Bag	1000 mL	Sterile
E10FFS	Kangaroo OMNI™ ENTelliSet™ Feeding Set with Flush Bag	1000 mL	Sterile
B31FFS	Kangaroo OMNI™ Feeding Set with Flush Bag and ENPlus 3 in 1	1000 mL	Sterile
E31FFS	Kangaroo OMNI™ ENTelliSet™ Feeding Set with Flush Bag and ENPlus 3 in 1	1000 mL	Sterile
B16FFS	Kangaroo OMNI™ Feeding Set with Flush Bag	1600 mL	Sterile
E16FFS	Kangaroo OMNI™ ENTelliSet™ Feeding Set with Flush Bag	1600 mL	Sterile
BSPFFS	Kangaroo OMNI™ Feeding Set with Flush Bag and ENPlus Spike	1000 mL	Sterile
ESPFFS	Kangaroo OMNI™ ENTelliSet™ Feeding Set with Flush Bag and ENPlus Spike	1000 mL	Sterile
B312FFS	Kangaroo OMNI™ Feeding Set with ENPlus 3 in 1 and 3 in 1 Flush		Sterile
E312FFS	Kangaroo OMNI™ ENTelliSet™ Feeding Set with ENPlus 3 in 1 and 3 in 1 Flush		Sterile
BSPVFFS	Kangaroo OMNI™ Feeding Set with ENPlus Spike and Vented Spike Flush Sterile		Sterile
ESPVFFS	Kangaroo OMNI™ ENTelliSet™ Feeding Set with ENPlus Spike and Vented Spike Flush Sterile		Sterile
E5FDR	Kangaroo OMNI™ ENTelliSet™ Thick Formula Feeding Set	500 mL	
E5FFR	Kangaroo OMNI™ ENTelliSet™ Thick Formula Feeding Set with Flush Bag	500 mL	

Kangaroo OMNI™ Item Codes

SKU	DESCRIPTION	TYPE	STERILE
E10FDR	Kangaroo OMNI™ ENTelliSet™ Thick Formula Feeding Set	1000 mL	
E10FFR	Kangaroo OMNI™ ENTelliSet™ Thick Formula Feeding Set with Flush Bag	1000 mL	
E5FDSR	Kangaroo OMNI™ ENTelliSet™ Thick Formula Feeding Set	500 mL	Sterile
E10FDSR	Kangaroo OMNI™ ENTelliSet™ Thick Formula Feeding Set	1000 mL	Sterile
E10FFSR	Kangaroo OMNI™ ENTelliSet™ Thick Formula Feeding Set with Flush Bag	1000 mL	Sterile
385400	Kangaroo OMNI™ Enteral Feeding Pump	With RF Chip	
485400	Kangaroo OMNI™ Enteral Feeding Pump	No RF Chip	
585400	Kangaroo OMNI™ Enteral Feeding Pump	International	
385401	Kangaroo OMNI™ Enteral Feeding Pump	Refurbished	
384491	Kangaroo™ Power Cord with Adapter		
584491	Kangaroo™ Power Cord with International Adapter		
385493	Kangaroo™ Communications Cable		
385495	Kangaroo™ Table Stand		
385492	Kangaroo™ Non-Adjustable Pole Clamp		
384492	Kangaroo™ Adjustable Pole Clamp		
770037S	Kangaroo™ Backpack Small Black		
770037M	Kangaroo™ Backpack Medium Black		
770037L	Kangaroo™ Backpack Large Black		
770035S	Kangaroo™ Backpack Small Purple		
770035M	Kangaroo™ Backpack Medium Purple		
770035L	Kangaroo™ Backpack Large Purple		

Warranty

Limited Warranty:

1. Cardinal Health warrants to the original purchaser ("Customer") that the newly manufactured Kangaroo OMNI™ Enteral Feeding Pump will be free of defects in materials and workmanship, under normal use, for three (3) years from the date of shipment from Cardinal Health. This Limited Warranty as applied to Kangaroo OMNI™ Enteral Feeding Pump battery and power adapter is limited to one (1) year from the date of shipment from Cardinal Health.
2. This Limited Warranty does not extend to routine maintenance of Kangaroo OMNI™ Enteral Feeding Pump. All recommended Performance Tests set forth in the Kangaroo OMNI™ Enteral Feeding Pump Instructions for Use remain the sole responsibility of Customer. Failure of Customer to perform cleaning, routine maintenance and recommended performance testing on any Kangaroo OMNI™ Enteral Feeding Pump as outlined in Kangaroo OMNI™ Enteral Feeding Pump Instructions for Use may void this Limited Warranty.
3. Customer agrees that, with the exception of customer serviceable parts and troubleshooting steps outlined in Kangaroo OMNI™ Enteral Feeding Pump Instructions for Use, Cardinal Health or its authorized repair center must perform Kangaroo OMNI™ Enteral Feeding Pump repairs.
4. This Limited Warranty does not cover any Kangaroo OMNI™ Enteral Feeding Pump product or part that:
 - (a) has been operated in an unsuitable environment or used for purposes other than intended;
 - (b) has been subjected to unauthorized or non-Cardinal Health repair or use of non-Cardinal Health supplied parts;
 - (c) has been altered, misused, abused or neglected;
 - (d) has been subjected to fire, casualty or accident;
 - (e) suffers damage caused by Customer's negligent acts or omissions; or
 - (f) suffers damage beyond normal wear and tear.
5. For purposes of this Limited Warranty, "damage beyond normal wear and tear" includes without limitation:
 - (a) Damage to housing, LCD, display, overlay or power supply;
 - (b) PCBA damage due to fluid ingress;
 - (c) Use of non-qualified power supply or battery; or
 - (d) Use of unauthorized cleaning fluids.
6. If a Kangaroo OMNI™ Enteral Feeding Pump does not operate as warranted during the applicable warranty period, Cardinal Health may, at its option and expense,
 - (a) repair or replace the defective part or Kangaroo OMNI™ Enteral Feeding Pump; or,
 - (b) refund to Customer the purchase price for the defective part or Kangaroo OMNI™ Enteral Feeding Pump.
7. Dated proof of original purchase is required to process warranty claims. Removal, defacement or alteration of serial lot number voids this Limited Warranty.
8. Shipping costs for Kangaroo OMNI™ Enteral Feeding Pump being returned to Cardinal Health shall be borne by Customer. Customer is responsible for proper packaging for return shipment. Loss or damage in return shipment to Cardinal Health shall be at Customer's risk.
9. Cardinal Health disclaims all other warranties, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose or application other than as expressly set forth in the product labeling. In no event shall Cardinal Health be liable for any incidental, indirect or consequential damages in conjunction with the purchase or use of Kangaroo OMNI™ Enteral Feeding Pump, even if advised of the possibility of the same.

Electromagnetic Conformity Declaration

Guidance and Manufacturer's Declaration – Electromagnetic Emissions

Kangaroo OMNI™ Enteral Feeding Pump are intended for use in the electromagnetic environment specified below. The customer or the user of Kangaroo OMNI™ Enteral Feeding Pump should assure that it is used in such an environment.

Emissions Test	Compliance	Electromagnetic Environment - Guidance
RF emissions CISPR 11 2015 + A1:2016 +A2:2019	Group 1	Kangaroo OMNI™ Enteral Feeding Pump use RF energy for its internal function. Kangaroo OMNI™ Enteral Feeding Pump must emit electromagnetic energy in order to perform their intended function. Nearby electronic equipment may be affected.
RF emissions CISPR 11 2015 + A1:2016 +A2:2019	Class B	Kangaroo OMNI™ Enteral Feeding Pump are suitable for use in all establishments, including domestic establishments and those directly connected to the public low- voltage power supply network that supplies buildings used for domestic purposes.
Radiated Disturbance Immunity (EN60601-1-2 / IEC 61000-4-3: 2006 + A1: 2007 + A2: 2010)	Complies	
Conducted Disturbance Immunity (EN60601-1-2 / IEC 61000-4-6:2013)	Complies	
Power Frequency Magnetic Field Immunity (EN60601-1-2 / IEC 61000-4-8:2009)	Complies	
Voltage dips and sags Immunity (EN60601-1-2 / IEC 61000-4-11:2004)	Complies	
Electrical Fast Transient / Bursts Immunity (EN60601-1-2 / IEC 61000-4-4:2012)	Complies	
Electrostatic Discharge Immunity (EN60601-1-2 / IEC 61000-4-2:2008)	Complies	
Surge Immunity (EN60601-1-2 / IEC 61000-4-5 2014)	Complies	

The emissions characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 Class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment.

Electromagnetic Conformity Declaration

Guidance and Manufacturer's Declaration – Electromagnetic Immunity


Kangaroo OMNI™ Enteral Feeding Pump are intended for use in the electromagnetic environment specified below. The customer or the user of Kangaroo OMNI™ Enteral Feeding Pump should assure that it is used in such an environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment -Guidance
Electrostatic discharge (ESD) (EN 61000-4-2 per EN 60601-1-2: 2014)	± 8 kV contact ± 15 kV air	Kangaroo OMNI™ Enteral Feeding Pump ± 8 kV contact ± 15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	± 2 kV for power supply lines	±2 kV for power supply lines	Mains power quality should be that of a typical commercial or facility environment.
Surge IEC 61000-4-5	± 1 kV differential mode	± 1 kV differential mode	Mains power quality should be that of a typical commercial or facility environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	Nominal Mains Voltage (V _{NOM}) 100 VAC and 240 VAC @ 50 Hz Voltage Dips 100% of V _{NOM} for 10 mSec (0.5 Line Cycles) at 0°, 45°, 90°, 135°, 180°, 225°, 270°, 315° 100% of V _{NOM} for 20 mSec (1 Line Cycle) at 0° 30% of V _{NOM} for 500 mSec (25 Line Cycles) at 0° Interruptions 100% of V _{NOM} for 5000 mSec (250 Line Cycles)	No degradation of performance or loss of function.	Mains power quality should be that of a typical commercial or facility environment. If the user of Kangaroo OMNI™ Enteral Feeding Pump or require continued operation during power mains interruptions, it is recommended that the device be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field (EN 61000-4-8 per EN 60601-1-2: 2014)	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or facility environment.

Electromagnetic Conformity Declaration

Guidance and Manufacturer's Declaration – Electromagnetic Immunity

Kangaroo OMNI™ Enteral Feeding Pump are intended for use in the electromagnetic environment specified below. The customer or the user of Kangaroo OMNI™ Enteral Feeding Pump should assure that it is used in such an environment.

Immunity Test	IEC 60601 test level			Compliance level	Electromagnetic environment –guidance
Conducted RF IEC 61000-4-6	6 Vrms 150 kHz to 80 MHz			6 Vrms	Portable and mobile RF communications equipment should be used no closer to any part of Kangaroo OMNI™ Enteral Feeding Pump including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance not applicable. $d = 1.2\sqrt{P}$ 80 MHz to 800 MHz $d = 2.3\sqrt{P}$ 800 MHz to 2.5 GHz Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, ^a should be less than the compliance level in each frequency range. ^b Interference may occur in the vicinity of equipment marked with the following symbol: <div style="text-align: right;">  </div>
Radiated RF (EN 61000-4-3 per EN 60601-1-2: 2014)	Band	Frequency	Modulation		
	380-390 MHz	385 MHz	PM, 18 Hz, 50%	27 V/m	
	430-470 MHz	450 MHz	PM, 18 Hz, 50%	28 V/m	
	704-787 MHz	710 MHz 745 MHz 780 MHz	PM, 217 Hz, 50%	9 V/m	
	800-900 MHz	810 MHz 870 MHz 930 MHz	PM, 18 Hz, 50%	28 V/m	
	1700-1990 MHz	1720 MHz 1845 MHz 1970 MHz	PM, 217 Hz, 50%	28 V/m	
	2400-2570 MHz	2450 MHz	PM, 217 Hz, 50%	28 V/m	
	5100-5800 MHz	5240 MHz 5500 MHz 5785 MHz	PM, 217 Hz, 50%	9 V/m	

Note 1: At 80 MHz and 800 MHz, the higher frequency range applies.

Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which Kangaroo OMNI™ Enteral Feeding Pump is used exceeds the applicable RF compliance level above, Kangaroo OMNI™ Enteral Feeding Pump should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating Kangaroo OMNI™ Enteral Feeding Pump.

^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Electromagnetic Conformity Declaration

Recommended separation distances between portable and mobile RF communications equipment and the Kangaroo OMNI™ Enteral Feeding Pump

Kangaroo OMNI™ Enteral Feeding Pump are intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of Kangaroo OMNI™ Enteral Feeding Pump can help prevent electromagnetic interference by maintaining the minimum distance between portable and mobile RF communications equipment (transmitters) and Kangaroo OMNI™ Enteral Feeding Pump recommended below, according to the maximum output power of the communication equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d=1.2\sqrt{P}$	80 MHz to 800 MHz $d=1.2\sqrt{P}$	800 MHz to 2,5 GHz $d=2.3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

Note 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Warning: Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. RF exposure warning: A minimum separation distance of 20 cm must be maintained between the device and the user or nearby persons.

IC STATEMENT

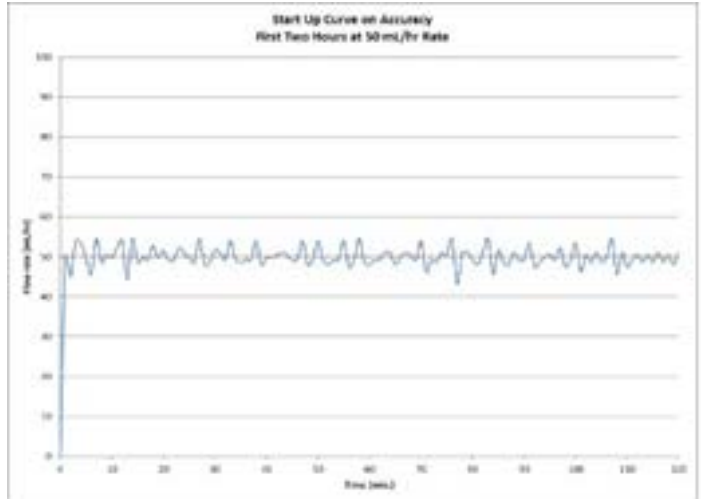
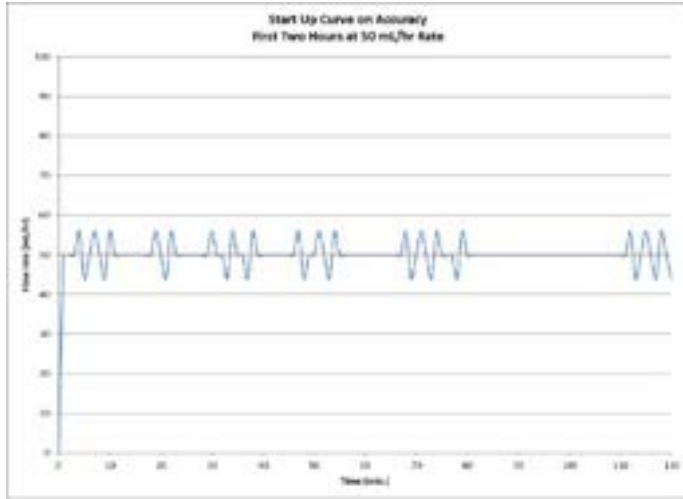
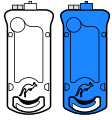
This device complies with relevant Radio Standards Specifications. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Warning: Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. RF exposure warning: A minimum separation distance of 20 cm must be maintained between the device and the user or nearby persons.

Appendix

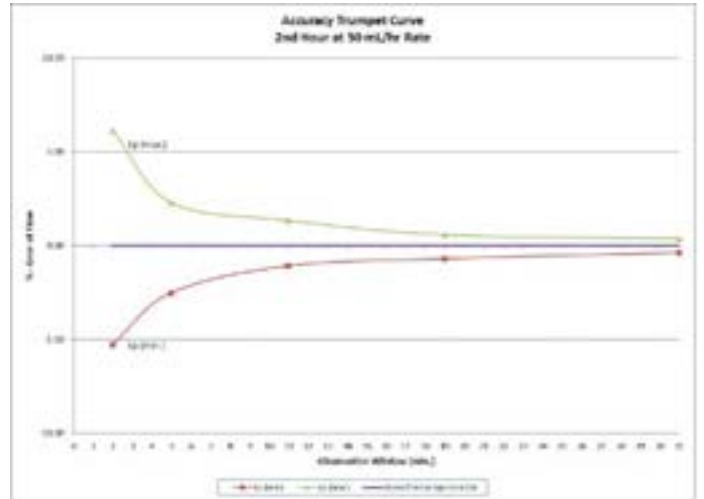
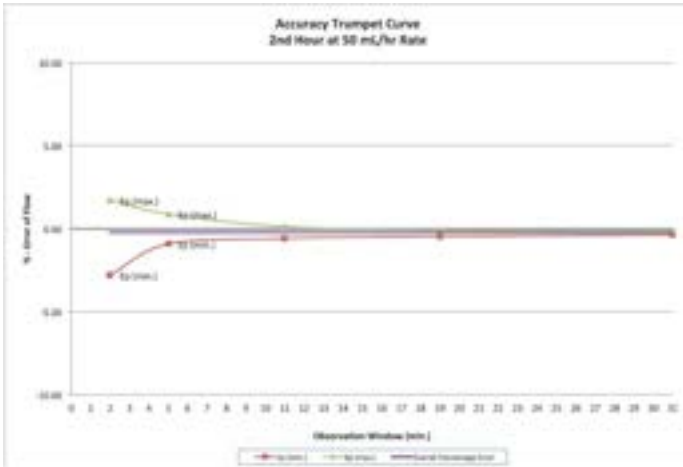
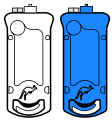
Appendix A - Accuracy Graphs

The following graphs illustrate the accuracy of Kangaroo OMNI™ Enteral Feeding Pump and 2nd and 23rd hours, per the IEC 60601-2-24 standard. The graphs are shown for both the Minimum Rate (1 mL/hr) and the Intermediate Rate (50 mL/hr).

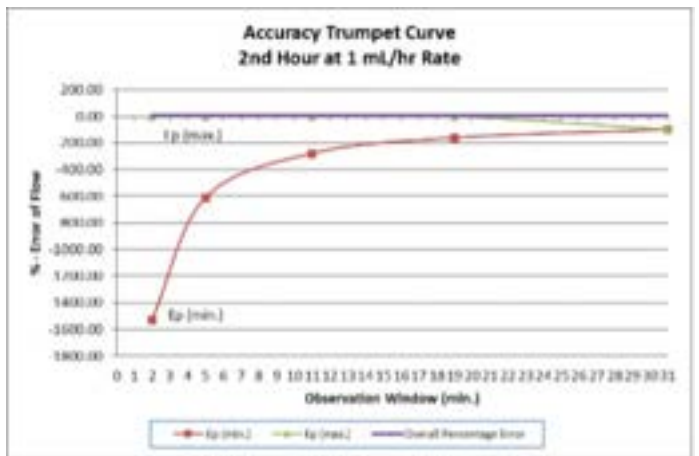
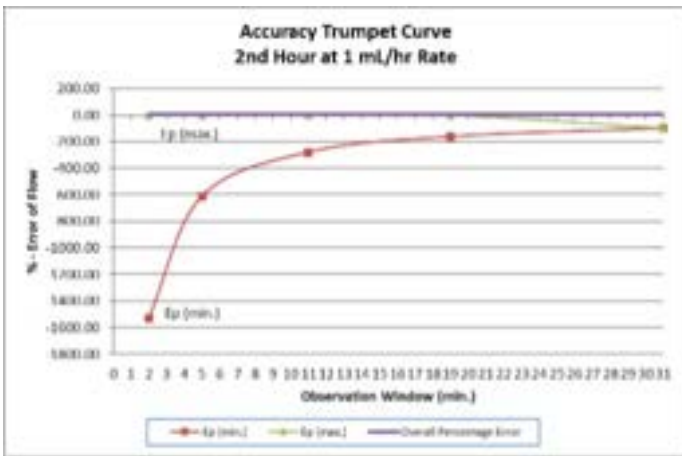
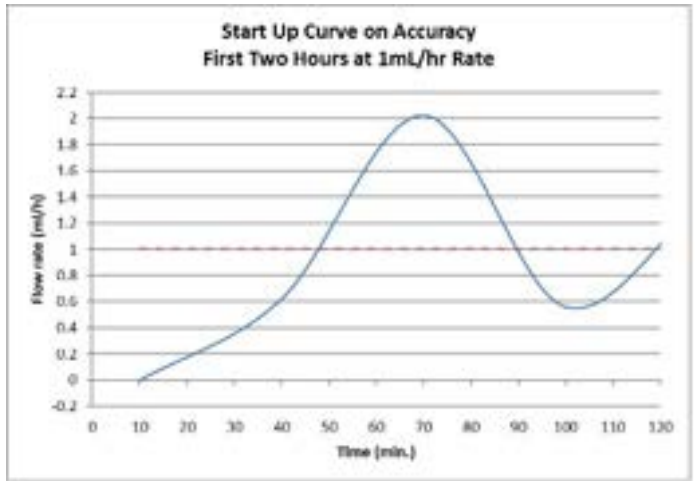
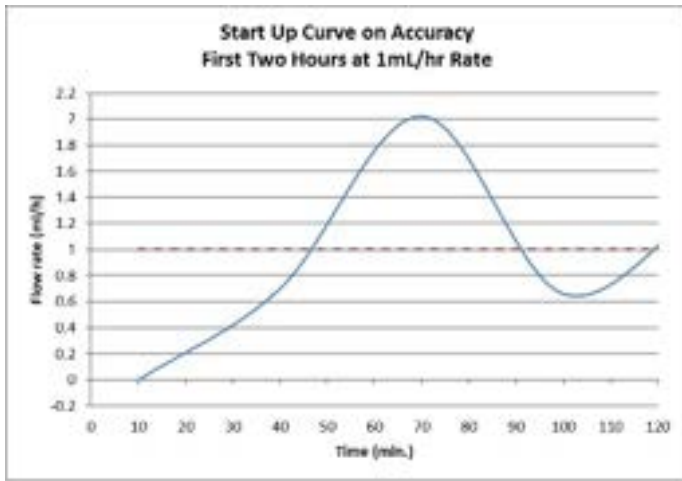
Start Up Curve on Accuracy



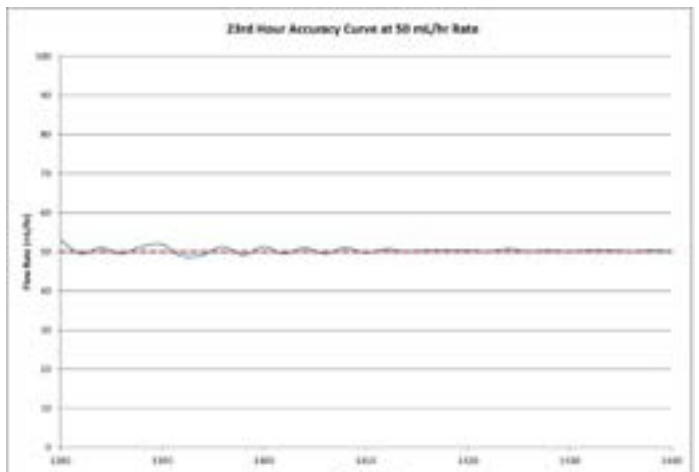
The percent variation of flow rate accuracy over an observation period may be shown with a trumpet graph. Following IEC 60601-2-24, trumpet graphs of the mean flow rate are provided.



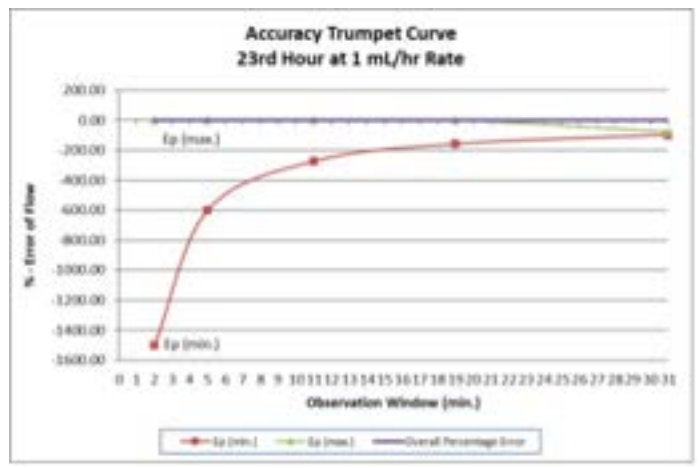
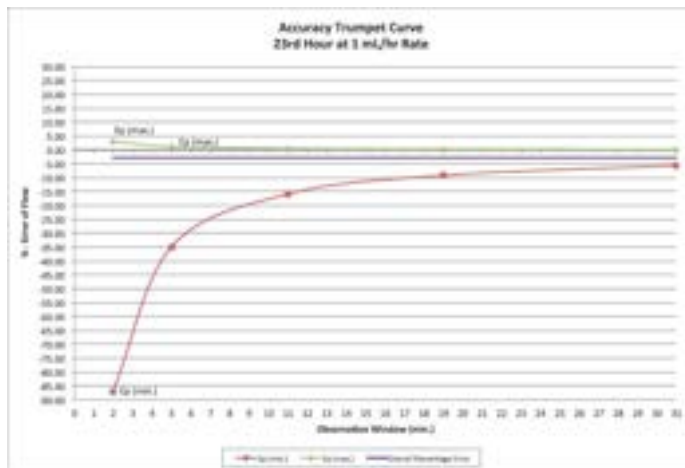
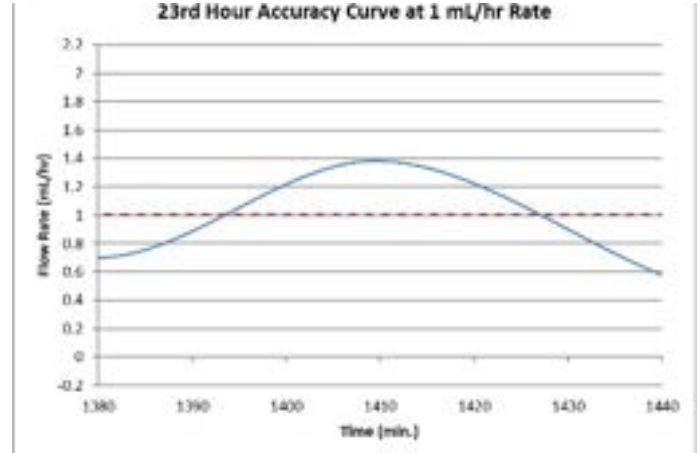
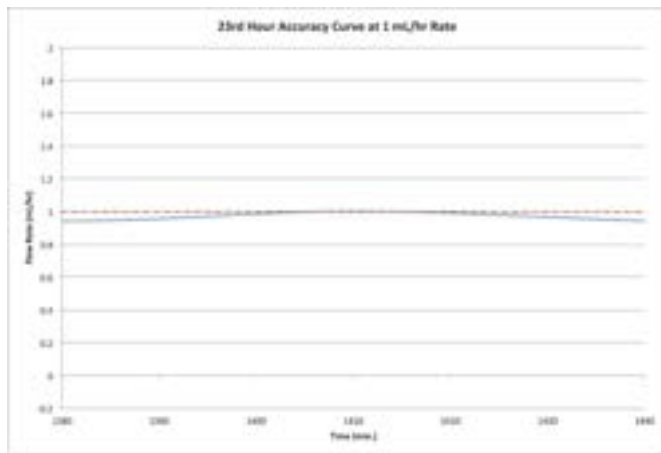
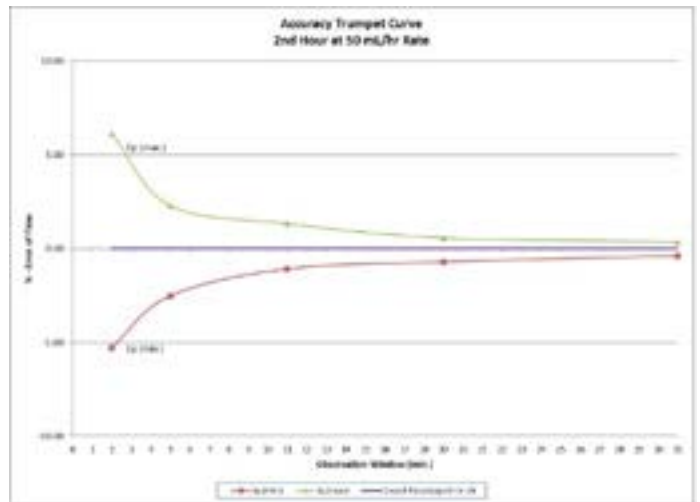
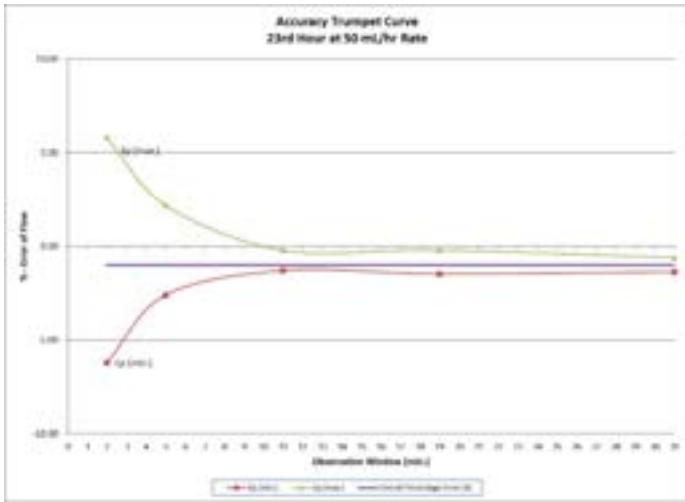
Appendix A - Accuracy Graphs



23rd Hour Curve on Accuracy



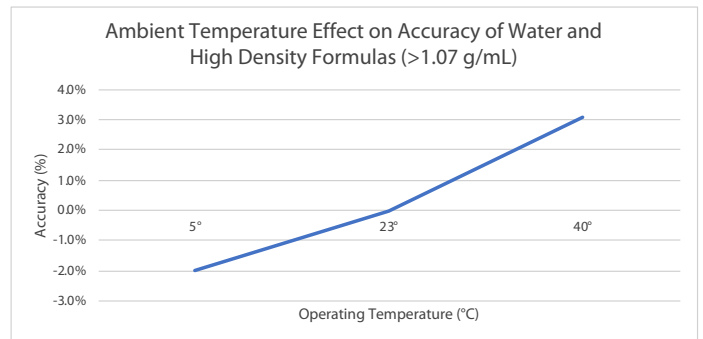
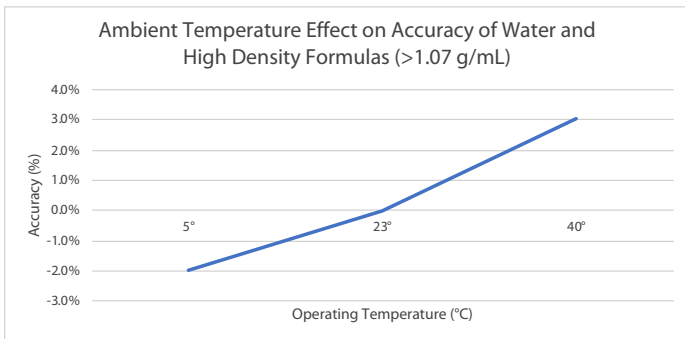
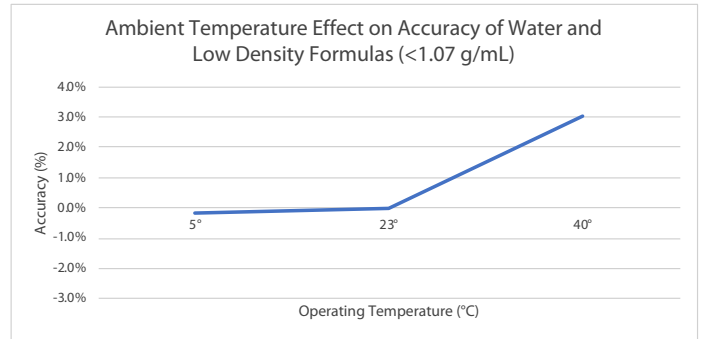
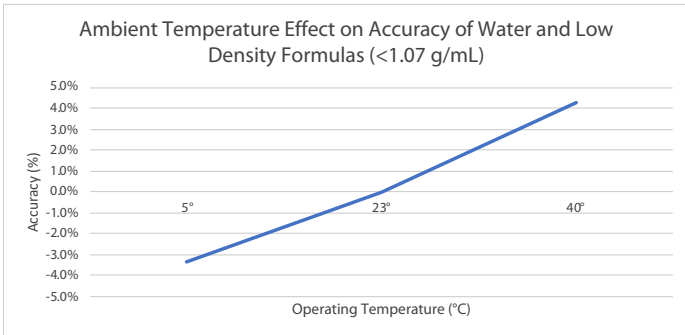
Appendix A - Accuracy Graphs



Appendix A - Accuracy Graphs

Ambient Temperature Effect on Accuracy

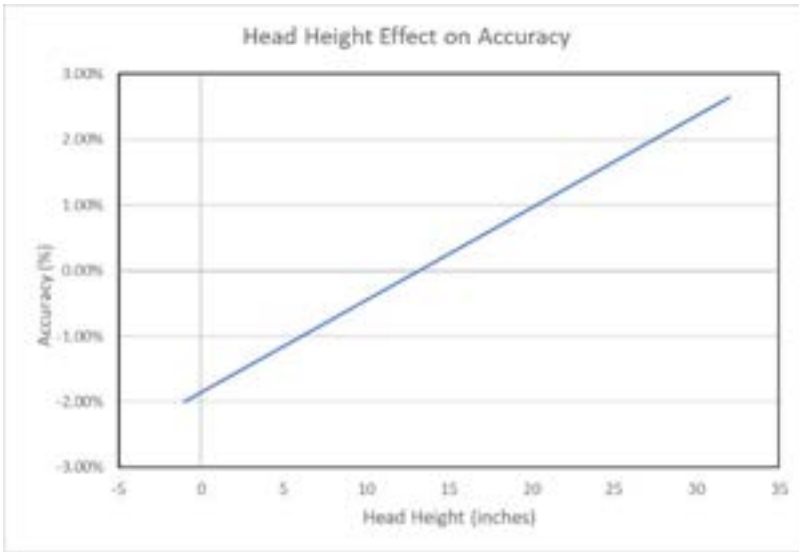
The diagrams below show how ambient temperature affects accuracy.



Appendix A - Accuracy Graphs

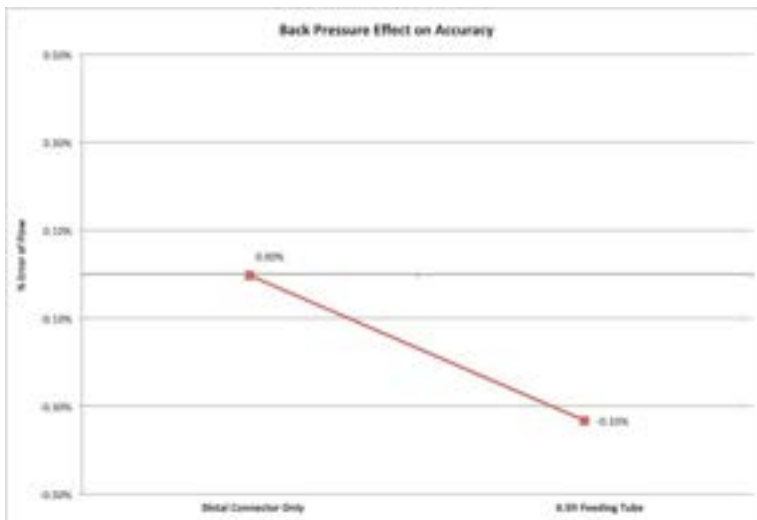
Head Height Effect on Accuracy

The diagram below show how variation from the recommend hang height affects accuracy.



Effects of Back Pressure on Accuracy

The nominal back pressure Kangaroo OMNI™ Enteral Feeding Pump accuracy testing is established at the distal connector on the end of the feeding set. This is compared with the back pressure that would be experienced when the distal connector is plugged into a 6.5 fr, 36 in. long nasogastric tube. Operating Kangaroo OMNI™ at the limits of this back pressure range can exhibit the accuracy effects seen in the graph below:



Effects of Back Pressure on Accuracy

Single Fault Condition Effect on Accuracy

In the event of a single fault short circuit in Kangaroo OMNI™ Enteral Feeding Pump electronics, a maximum Feed of 3.02 mL of extra fluid delivery may occur.

Appendix B - Explanation of Alarms

The purpose of this appendix is to provide an overview of how the Kangaroo OMNI™ Enteral Feeding Pump alarm system works and what priorities are assigned to each alarm.

Overview

Kangaroo OMNI™ Enteral Feeding Pump has alarms that are broken into three different priorities: High Priority (Red Blinking Indicator Light), Medium Priority (Yellow Blinking Indicator Light), and Low Priority (Solid Yellow Indicator Light). These alarms occur based upon feedback from different sensor inputs from Kangaroo OMNI™ Enteral Feeding Pump. Key inputs for the alarms include the following:

- Motor Current
- Battery Voltage
- Upstream Ultrasonic Sensor Voltage
- Magnetic Sensor Voltage
- Microprocessor Timer
- Motor Encoder Signal
- Force Sensor Voltage

To ensure the alarm is working properly, the pump is designed to make an audible sound when powering up the pump. As a self-check, it is recommended to listen for the audible sound during the power-up sequence to ensure that the alarm is operating properly. If no audible sound occurs at power-up, discontinue use and contact a customer service representative. The breakdown for each information signal is as follows:

- **Pump Inactive Information Signal**
Sensor Input: Microprocessor Timer
Kangaroo OMNI™ Enteral Feeding Pump uses the microprocessor timer to know when 10 minutes of inactivity has elapsed.
- **Low Battery Information Signal**
Sensor Input: Battery Voltage
Kangaroo OMNI™ Enteral Feeding Pump determines if the battery reaches a set low voltage level. When this voltage level is reached, the alarm will activate.
- **Feed Error Information Signal**
Sensor Input: Upstream Ultrasonic Sensor Voltage
Kangaroo OMNI™ Enteral Feeding Pump determines if the bag is empty or if there is a blockage in the tube when the upstream sensor voltage drops below a set minimum voltage level while attempting to feed.
- **Flush Error Information Signal**
Sensor Input: Upstream Ultrasonic Sensor Voltage
Kangaroo OMNI™ Enteral Feeding Pump determines if the bag is empty or if there is a blockage in the tube when the upstream sensor voltage drops below a set minimum voltage level while attempting to flush.
- **Rotor Stuck Information Signal**
Sensor Input: Motor Current
Kangaroo OMNI™ Enteral Feeding Pump determines there is a stuck rotor when the motor current reaches a certain maximum level.
- **Patient Tube Blocked Information Signal**
Sensor Input: Force Sensor Voltage
Kangaroo OMNI™ Enteral Feeding Pump will alarm for Patient Tube Blocked based upon voltage value levels it receives from the Force Sensor.

Appendix B - Explanation of Alarms

- **Cassette Dislodged Alarm**
Sensor Input: Magnetic Sensor
Kangaroo OMNI™ Enteral Feeding Pump will alarm for Cassette Dislodged when a low voltage level is received from the magnetic sensor.
- **Valve Error**
Sensor Input: Motor Encoder Signal
Kangaroo OMNI™ Enteral Feeding Pump will alarm for Valve Error when the motor encoder signal indicates the valve shaft is not positioned correctly.
- **Sensor Error (1) Information Signal**
Sensor Input: Upstream Ultrasonic Sensor Voltage
Kangaroo OMNI™ Enteral Feeding Pump will alarm for Sensor Error (1) if the voltage levels from the upstream ultrasonic sensors are not within the normal operating range.
- **Sensor Error (2 or 3) Information Signal**
Sensor Input: Force Sensor Voltage
Kangaroo OMNI™ Enteral Feeding Pump will alarm for Sensor Error (2 or 3) if the voltage levels from the force sensor is not within the normal operating range.
- **Cassette Error Information Signal**
Sensor Input: Motor Current
Kangaroo OMNI™ Enteral Feeding Pump will alarm for Cassette Error when the rotor motor current variation is below a set minimum level while Kangaroo OMNI™ is running.
- **Dead Battery Error Information Signal**
Sensor Input: Battery Voltage
Kangaroo OMNI™ Enteral Feeding Pump will alarm when the battery voltage reaches a set minimum level.

Appendix B - Explanation of Alarms

Priority Handling of Information Signals

In all cases, High Priority alarms are the most important and override any other alarm conditions. A medium or low priority alarm will never disable a High Priority alarm. Medium Priority alarms all have equal weighting. There should never be a situation when medium priority alarms are occurring at the same time, so there is no need to assign a weighting within the medium alarm priority.

Kangaroo OMNI™ Enteral Feeding Pump never changes the priority of alarms based on situational or environmental conditions. Alarm priority of Kangaroo OMNI™ Enteral Feeding Pump remains fixed. Additionally, Kangaroo OMNI™ Enteral Feeding Pump does not change Alarm Signal Generation delay or Alarm Condition delay as a result of situational or environmental conditions. Finally, Kangaroo OMNI™ Enteral Feeding Pump does not change the characteristic of the generated alarm signals. Below is the listing of alarm priorities for the Kangaroo OMNI™ Enteral Feeding Pump:

High Priority

- 0: System Alarm Condition
- 1: Dead Battery Alarm Condition (<3 minutes)
- 2: All Other Critical Alarm Conditions

Medium Priority

- 3: Low Battery Caution Alarm Condition (<15 minutes)
- 4: Valve Error Alarm Condition
- 5: All Error Alarm Conditions

Low Priority

- 6: Low Battery Notice Alarm Condition (<30 minutes)
- 7: Other Notification Conditions

In this case, the number 0 represents the Highest Priority.

Follow instructions for use. Symbol appears blue on device. MR Unsafe – an item that is known to pose hazards in all MR environments. Type BF applied part. Class II equipment. Protection against fluid ingress: Drip-proof. Non-ionizing electromagnetic radiation.



**Rx
ONLY**

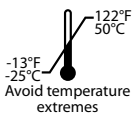


Refer to instruction manual/booklet. Symbol appears blue on device.



MR Unsafe

MR Unsafe – an item that is known to pose hazards in all MR environments.



Avoid temperature extremes



Type BF applied part



IP26



Cardinal Health 200, LLC

3651 Birchwood Drive
Waukegan, IL 60085 USA
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