

# PUMPS

## Common Pumps

Curlin

CADD

Sapphire

Zyno

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Clinical Supervisors



# HHC Resources Page

The screenshot shows the HHC Resources Page navigation menu. At the top left is the HHC logo (Helms Home Care) with the text 'HHC HELMS HOME CARE'. To the right is a 'Submit After-Hours Ticket' button and contact information: 704-802-9655 (24/7 on-call), 704-802-9625 (Office), and 888-502-5390 (Fax). Below this are three tabs: 'GENERAL INFORMATION', 'CHARTING & VISIT DOCUMENTATION', and 'CLINICAL TRAINING & RESOURCES'. The 'CLINICAL TRAINING & RESOURCES' tab is active and highlighted in blue. Below the tabs is a grid of eight resource tiles. The tiles are: 'Visit Types', 'Specialty Drug Therapies', 'Lab Draws', 'Access: CVCs, PIVs & Injections', 'DON's Know Before You Go', 'Pumps', 'HHC Academy (Schoox Login)', and 'Respiratory Viruses & Vaccination'.

**HHC HELMS HOME CARE**

[Submit After-Hours Ticket](#)

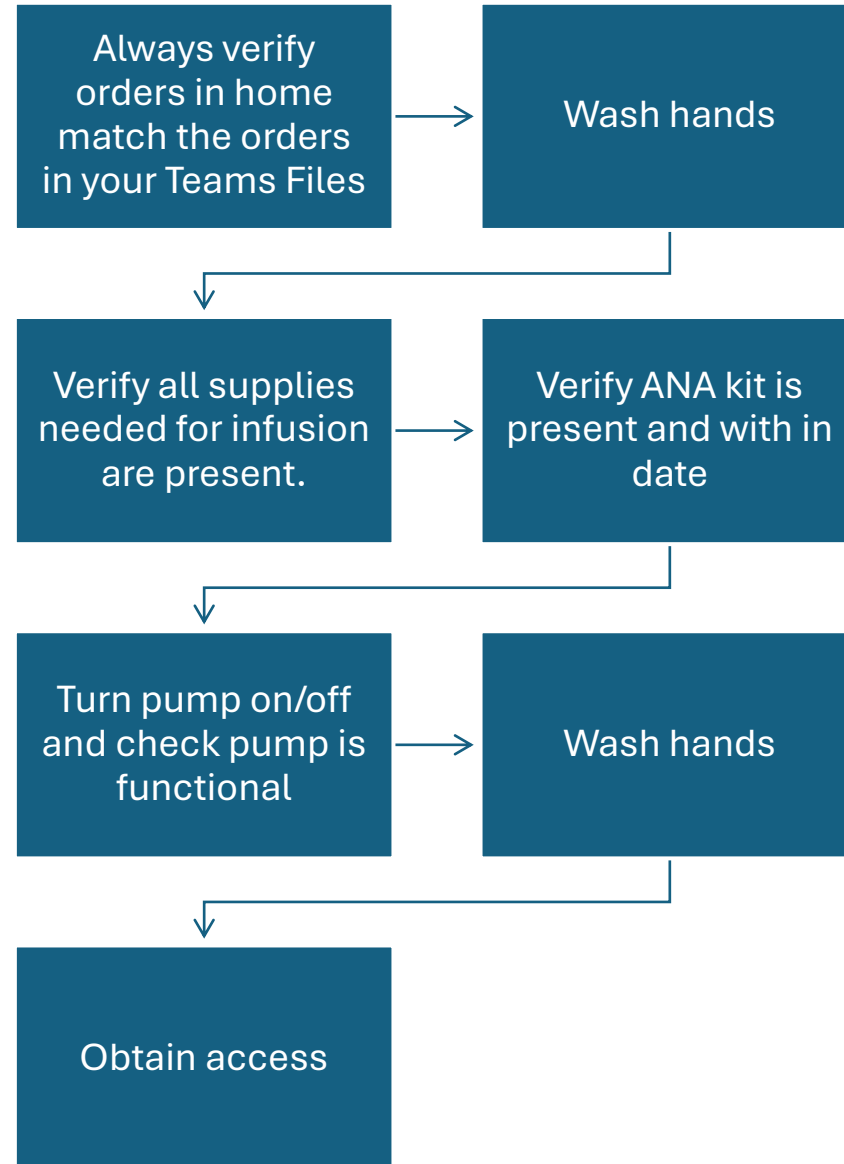
704-802-9655 (24/7 on-call)  
704-802-9625 (Office)  
888-502-5390 (Fax)

GENERAL INFORMATION | CHARTING & VISIT DOCUMENTATION | **CLINICAL TRAINING & RESOURCES**

- Visit Types
- Specialty Drug Therapies
- Lab Draws
- Access: CVCs, PIVs & Injections
- DON's Know Before You Go
- Pumps
- HHC Academy (Schoox Login)
- Respiratory Viruses & Vaccination

- HHC Resources page has info on the pumps found in home.
- [HHC Resources Page-Pump](#)

# Basic Steps for Any pump



# Curlin 6000

[Curlin 6000 by MOOG \(hhc-resources.com\)](http://hhc-resources.com)

- Most used pump in home therapy
- Used for TPN, IVIG, Abx, Cardiac Meds, Hydration
  - Takes 2 C batteries

## Modes:

- Continuous - Used for Hydration, Cardiac meds, IV ABX
- TPN - Includes Ramp up and Ramp down
- Variable - Used for titrated meds ( Most commonly IVIG)

**Requires VENTED Spike to be added to curlin tubing for IVIG infusions from glass bottle**

Older version Curlin 4000 is still in use but rarely seen.



# Batteries



## Before you begin

There are important steps you must take before you begin. Please refer to your SASH Teaching Mat for more details.

1. **Clean** your work area.
2. **Wash** your hands.
3. **Gather** your supplies:
  - Pump
  - Two "C" batteries
  - Pump tubing
  - Backcheck valve (if instructed to use)
  - Medication bag, at room temperature
  - Alcohol pads
  - Pre-filled saline syringe(s)
  - Pre-filled heparin syringe(s), if ordered
  - Pump carrying bag (if instructed to use)
  - Sharps container, if you are using needles
4. **Inspect** the medication label:
  - Correct patient name
  - Correct medication and dose
  - Medication is not expired
  - Length of infusion
  - The solution should be clear, consistent in color and free of any visible particles

## Insert batteries

1. If the pump is running, stop the pump by pressing **RUN/PAUSE**, then **ON/OFF**.
2. Open the battery door by sliding the switch on the battery door to "unlock". Then slide the door off.



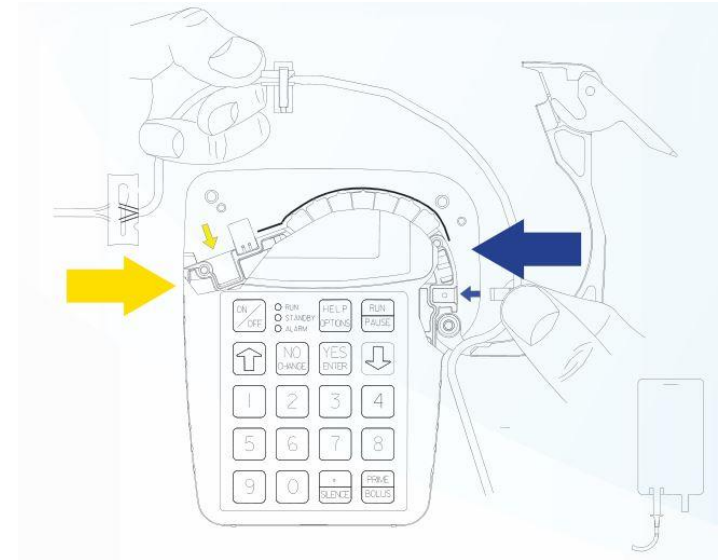
3. Remove the used batteries.
4. Insert the new batteries with the positive terminals at the top, replace the battery door, and slide the switch back to lock it.

**Avoid mixing new and used batteries at any point.**



# Loading the Tubing

- Open door
- Locate Yellow and Blue Arrow on pump
- Twist off the yellow oval piece on the tubing and discard
- Insert tubing into pump yellow part of tubing to yellow arrow
- Blue part of tubing to blue arrow
- Be sure that the tubing goes behind the notch
- Close door





Alarm type and/or message	Problem/action
LOW C-BATTERIES	Pump batteries are dislodged or are low in power. Pause your infusion by pressing the  key and turn the pump off. If new batteries have been installed, open door and reinsert. Otherwise, install new batteries. Depending on the rate, you will have between 30 min – 4 hours to change the batteries.
ALARM_UP OCCLUSION	The pump senses low pressure of medication from the IV bag to the pump. Press . Check for clamps that are closed or kinks in the tubing. Open the clamp or remove the kink and resume the infusion.
ALARM_DOWN OCCLUSION	The pump senses high pressure between the pump and the IV device. Press . Check for clamps that are closed or kinks in the tubing. Open the clamp or remove the kink and resume the infusion. If the alert continues, call your nurse or pharmacist.
INFUSION COMPLETE	Press  and turn the pump off. Start a new bag of medication as instructed.
AIR-IN-LINE	The sensor has picked up air in the line. Disconnect the tubing from the IV catheter using aseptic technique. Press the  key until the air has been removed.
ALARM UNATTENDED	The pump will alarm when left idle for 2 minutes. Press  to start the infusion or press  to power down the pump.

# CURLIN Videos

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[Curlin Video Library](#)

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[Infusion Resource Center - Moog Medical](#)

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[Curlin Pump Patient Education Sheet](#)

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[HHC Resources Curlin Videos](#)

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[Curlin Setting Variable Rate](#)

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[Curlin TPN set up](#)

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[Curlin TPN with Vitamins](#)

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[Curlin and Milrinone/Dobutamine](#)



# Cadd Solis

- Used for TPN, IVIG, Abx, Cardiac Meds, Hydration
  - Takes 4 AA Batteries

## Modes:

- Continuous - Used for hydration, cardiac meds, IV Antibiotics
- TPN - Includes Ramp up and Ramp down
- Step Therapy titrated meds ( Most commonly IVIG)

**Requires VENTED Spike to be added to Cadd Solis tubing for IVIG infusions from glass bottles**





Immediate visual indication of pump status with color-coded status bar

Drug protocol is displayed on Protocol Bar with selected Therapy, Qualifier and Drug

Intuitive programming with step-by-step instructions on color-coded screen

Easy navigation with soft key interface

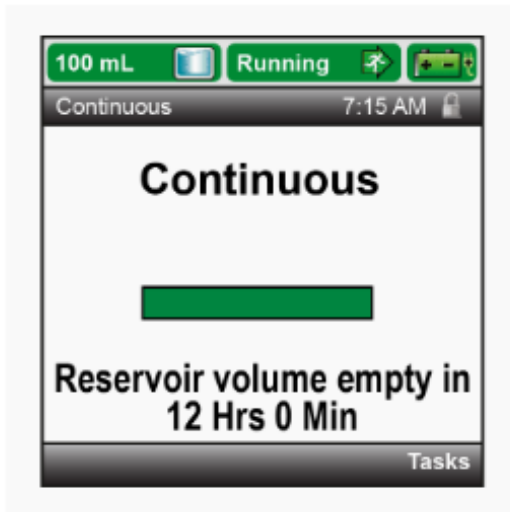
Create clinician confidence with pump lock status indicator

Clearly displayed infusion delivery parameters with unit of measure

Easy disposable attachment with cassette latch lever

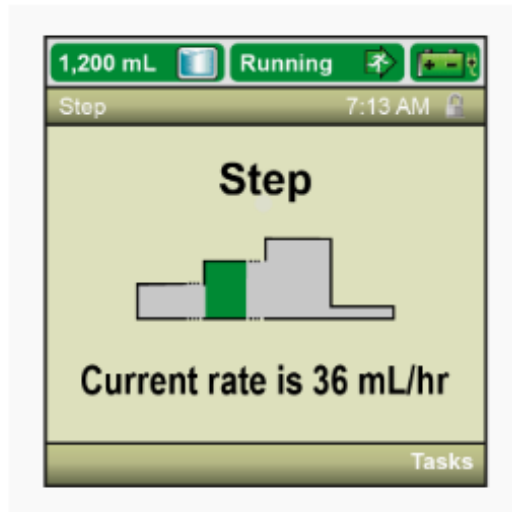
Convenient PCA dosing while ambulatory with PCA dose key

# Common Screens and Settings



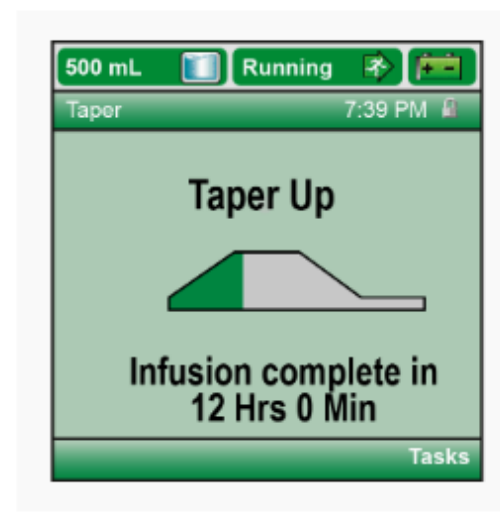
## Continuous

Constant, programmed rate



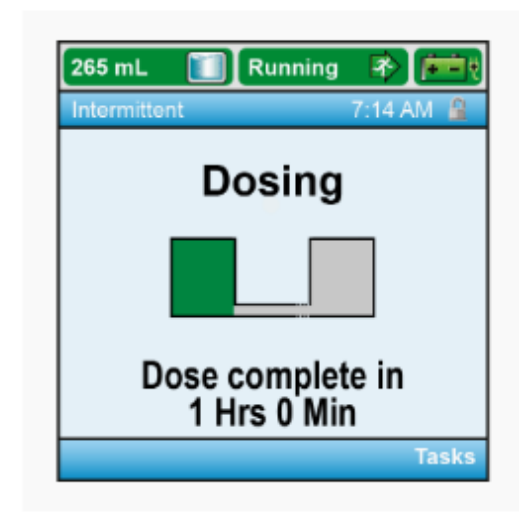
## Step

Incremental rate increases from an initial rate to a specified maximum plateau rate for a total volume



## Taper

Plateau rate with optional tapering at the beginning and end



## Intermittent

Specific volume at a scheduled interval over a specified duration

# Loading Cadd Tubing

- Power on Pump
- Unlock Hinge on side
- Insert cassette hooks into the pumps hinge pins
- Press down Firmly to snap into place
- Close latch on pump



Compartment for batteries

# CADD Solis Alarms

Alarm	Message
System fault alarm	An unrecoverable error may have occurred, such as a hardware or software fault. With this alarm, the amber indicator light is continuously lit, the screen is red and a two-tone alarm sounds. If a system fault alarm occurs, contact your nurse or healthcare provider.
High priority alarm	This alarm always pauses or stops the pump. This alarm is accompanied by a red screen and persists until acknowledged by a key press or until the condition that triggered the alarm goes away. If silenced, the alarm sounds again after two minutes if the alarm condition still exists.
Medium priority alarm	This alarm does not stop the pump (delivery continues). This alarm is accompanied by an amber screen and persists until acknowledged by a key press or until the condition that triggered the alarm goes away. If silenced, the alarm sounds again after two minutes if the alarm condition still exists.
Low priority alarm	This alarm does not stop the pump (delivery continues). The alarm is accompanied by a blue screen and persists for five seconds (or more with some alarms) unless it is acknowledged by a key press or until the condition that triggered the alarm goes away.
Informational priority message	These messages do not stop the pump. They appear in the status bar for five seconds, are almost always silent and require no acknowledgement. Examples include ' <b>cassette locked</b> ' and ' <b>cassette unlocked</b> '.



# CADD Solis Videos

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[Cadd Solis TPN Therapy Guide](#)

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**Continuous**

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[Program Load Prime Video](#)

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[CADD Solis Trouble Shooting](#)

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[Cadd Solis Bag Change](#)

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[CADD Solis Patient Education Sheet](#)

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[HHC Resources Cadd video Links](#)

# Sapphire

## [Sapphire User Guide](#)



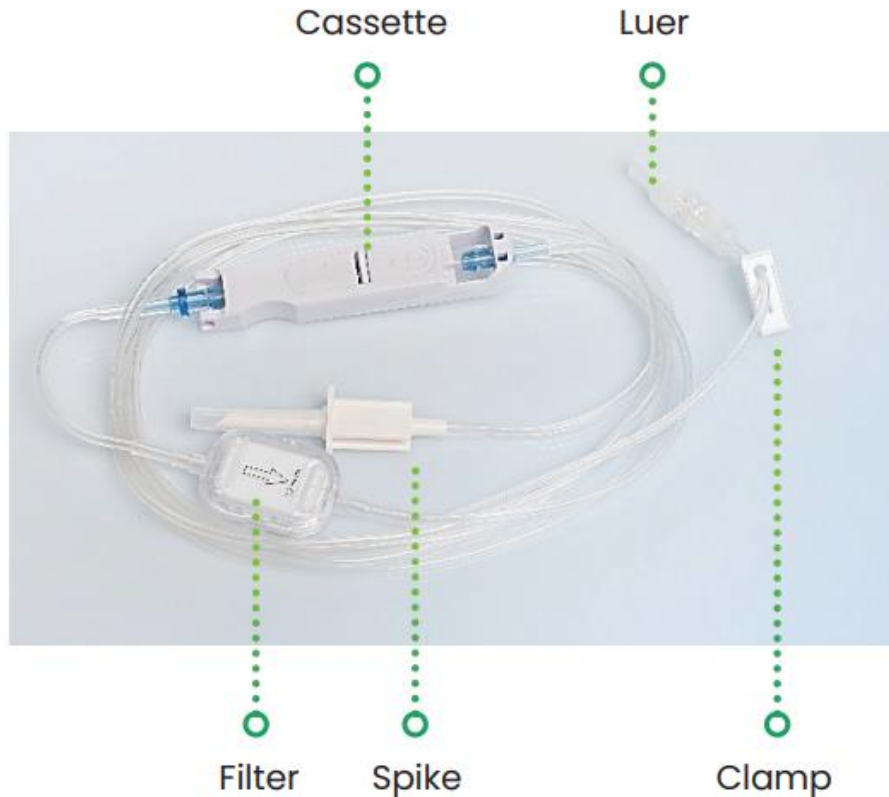
- One of the newest home IV pumps
  - Touch screen
  - Has Internal Lithium Battery
- Used for TPN, IVIG, Abx, Cardiac Meds, Hydration

### **Modes:**

- Continuous- Used for hydration, cardiac meds, IV Antibiotics
- TPN- Includes Ramp up and Ramp down
- Multi-Step- Used for titrated meds ( Most commonly IVIG)

**This tubing IS vented for infusion from glass bottle**

# Sapphire Tubing



## INSERT CASSETTE

- 1 Verify all clamps are closed. At an angle, place the saddle on the round metal anchor and clip the upper end of the administration cassette into the metal lock.

If the set includes a filter, make sure the filter's arrow points in the direction of the flow.



- 2 Make sure the arrow on the cassette is pointing towards the bottom of the pump.



- 3 Close the safety door and ensure that the safety door clicks upon closure.

Sets are single use. Use Aseptic technique.

Only use administration sets designated (or designed) for the Sapphire pump.





# Sapphire Screen



# Videos for Common Delivery Methods

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[Sapphire Video Gallery - Eitan Medical](#)

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[Sapphire Trouble Shoot](#)

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[Sapphire Pump Quick Guides](#)

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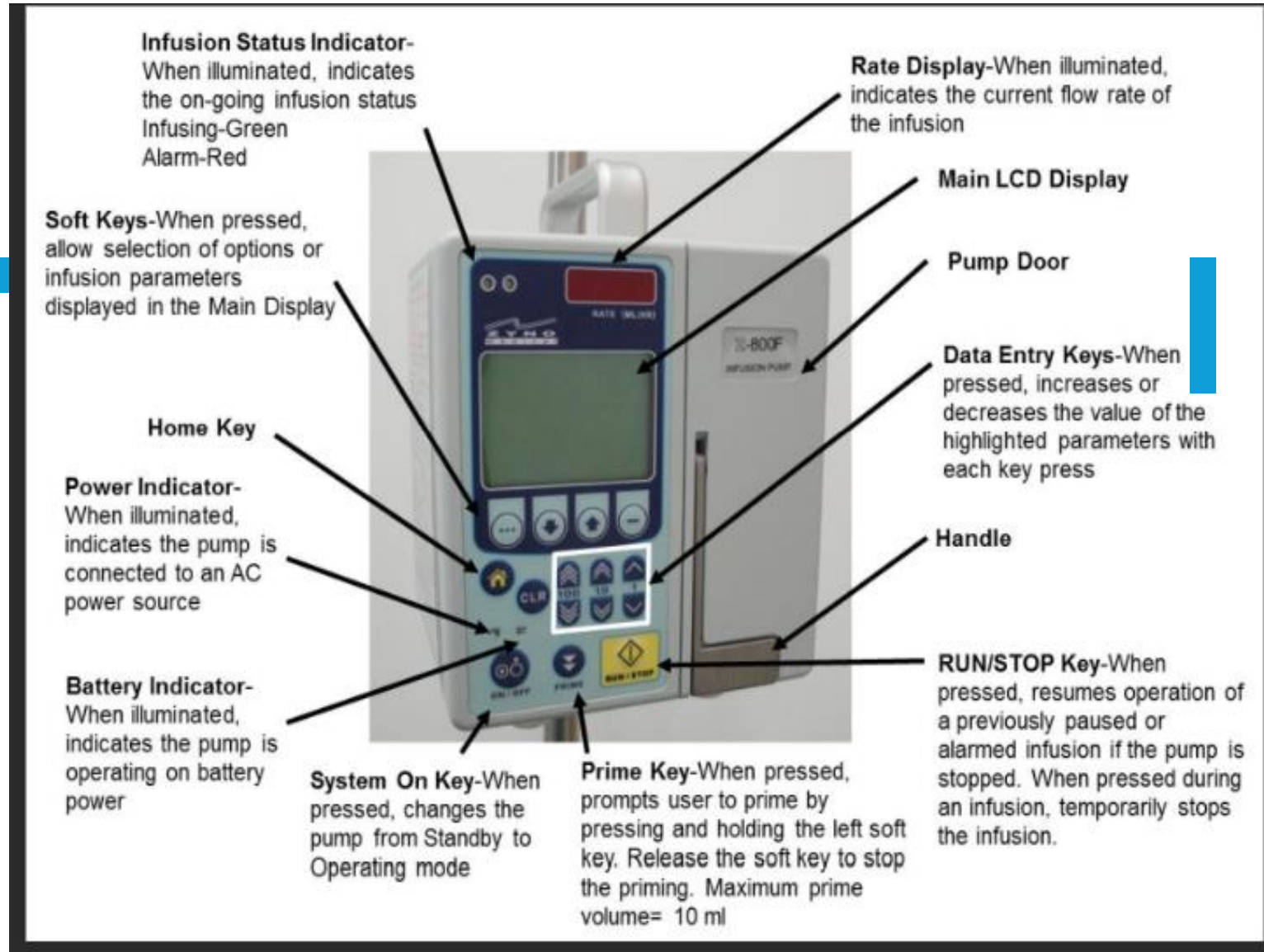
[QuickStart Sapphire](#)

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[Another Sapphire Quick Guide](#)

# Zyno

- One of the oldest home IV pumps
- Plugs in to wall- Internal Lithium Battery
  - Used for IVIG Abx Hydration
    - Modes:
      - Continuous- Used for hydration, IV Antibiotics
        - TPN- Not commonly used
  - 10 Step Therapy- Used for titrated meds ( Most commonly IVIG)
  - **This tubing IS vented for infusion from glass bottle**



# Loading Zyno Tubing



- [How to Load IV Tubing - YouTube](#)

- Open door of pump
- Using a thumb, firmly push the metal button of the Anti-Free-Flow Module, slide the Clamp into the Clamp holder from the top -pay attention to the orientation of the clamp and release the button.
- Using a fingertip, firmly push the tubing into the gap of the Air-in-Line Sensor.
- Align the tubing on top of the gap of the Free Flow Clamp.
- Do not force the tubing into the clamp.
- The tubing will be loaded into the Free Flow Clamp automatically when the pump door is closed.
- Close door

# Zyno Links

- [Zyno How to Video](#)
- [Zyno 10 Step Guide - For titrated infusions](#)
- [Zyno User Guide](#)

# HELP!

The pump is asking for a password or code



If pump is locked by pharmacy, please reach out to **CLINICAL** for assistance.



Use the tags **@teamhelp-CareCoordination** and **@teamhelp-Clinical** during business hours



After 4pm use [HHC After-Hours Ticket/Request \(monday.com\)](https://monday.com) to submit a ticket for help.

# HELP! My pump does not work!



If you arrive and the pump is **NOT** working properly or fails during an infusion.

**STOP** and reach out to the Agency via Teams @teamhelp-carecoordination or by submitting a ticket. Let us know what the pump error is and allow time for CC or CS to call pharmacy.

Dial a flow **CANNOT** be used in place of a pump without pharmacy approval.

- Some pharmacies send a dial a flow tubing to be used **AFTER** pharmacy approval, in the event of pump failure, but can **ONLY** be used after the agency reaches out for approval.

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**Do NOT call the Pharmacy or MD office unless asked to do so by Helms Home Care**

- If you are asked to call pharmacy or Provider's office by patient or if you need to reach the pharmacy –Do not call them directly. Please reach out to HHC via Teams @teamhelp-carecoordination





# Thank you!

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For assistance during  
business hours use  
[@teamhelp-  
carecoordination](#) and  
[@teamhelp-Clinical](#)

After 4pm and on  
weekends submit a  
ticket [HHC After-Hours  
Ticket/Request  
\(monday.com\)](#)

