MOOG Medical Devices Group

Curlin 6000 Series ™ Ambulatory Infusion Pump

# PATIENT GUIDE

MOOG®

Enhancing Healthcare. Enriching Lives.

## TABLE OF CONTENTS


Introduction ..... 2
Important keys ..... 2
Installing/Changing the Batteries ..... 3
Preparing Your Therapy ..... 4
Removing the Tubing from the Pump ..... 4
Priming the Tubing by Gravity ..... 4
Loading the Tubing into the Pump ..... 5
Starting a New Medication Container (Bag) ..... 6
Priming the Administration Set Using the Pump ..... 7
Restarting an Interrupted Infusion ..... 7
Using the AC Power Adapter ..... 8
Alarms ..... 9
Frequently Asked Questions ..... 9
Troubleshooting ..... 10

## INTRODUCTION

Your healthcare provider has prescribed the Curlin Ambulatory Infusion Pump to assist in delivering your medical treatment.

Your clinician will program the pump specifically for your therapy and teach you how to use the pump for your treatment. The information in this guide will help you learn how to use the pump. If you have questions, ask your clinician to explain the pump's operation so that you understand it completely.

## IMPORTANT KEYS

The keys that you will need to know how to use are listed below with an explanation of how they are used. If you need to use other keys on the keypad, your clinician will instruct you how to use them.

1. **ON/OFF**: Used to turn the pump on and off.
2. **RUN/PAUSE**: Used to start or pause the infusion. When you are at the "Run to Start" screen, this key will start the infusion. This key will also silence most alarms. When the pump is running, this key will pause the infusion.
3. **UP ARROW**: Used to move the highlight bar up on the screen.
4. **DOWN ARROW**: Used to move the highlight bar down on the screen.
5. **YES/ENTER**: Used to respond "YES" to highlighted text on the screen.
6. **HELP/OPTIONS**: Used to request a help screen when text is highlighted on the screen. The pump should be paused to use this key. When the pump is running, this key will take you into the OPTIONS menu, but you will not need to go to this menu unless instructed by your clinician.
7. **SILENCE**: Used to silence an alarm for one minute. The **PAUSE** key will also silence most alarms.

8. **PRIME/BOLUS**: Used to prime fluid through the tubing to clear it of air if your clinician has instructed you to prime the tubing using the pump. If you have pain management therapy, this key can also be used for your PCA doses instead of the bolus cord.
9. **2 & 4 NUMERIC KEYS**: When your pump is running, you can press the #2 key to find out approximately how much battery life you have left. If you need to see the information on the Infusion Running screen, you can press the #4 key to stop the screen and read the information. The pump will return to the Running Screen after several seconds.

## INSTALLING/CHANGING THE BATTERIES

1. If the pump is running, press the **PAUSE** key.
2. Turn the pump off by pressing the **OFF** key.
3. Turn the pump over.
4. Open the battery door by sliding the gray bar to the right to the "UNLOCK" position.
5. Remove the battery door by pulling the door downward.
6. Remove batteries by gently pulling outward on the plastic pull tab between the batteries if one is present. If a pull tab is not present, remove the batteries from the top first.
7. Insert the new batteries flat bottom side first (the flat side is the negative pole). Insert them one at a time.
8. Verify that the metal on the bottom of the batteries is in contact with the springs in the bottom of the battery compartment.
9. If a plastic pull tab is present, ensure that the pull tab is between the batteries and not under the batteries.
10. Push the top of the batteries into place.
    Both batteries are placed in the same direction with the negative pole (flat side) at the bottom and positive poles at the top. Duracell ProCell "C" batteries are recommended. The "C" cell batteries are NOT rechargeable.

11. Replace the battery compartment door by inserting the door in the notches at the bottom of the pump and slide upward.
12. Lock the door by sliding the gray bar to the left to the "LOCK" position.
13. Turn the pump back over.
14. Turn the pump on by pressing the **ON** key. Wait for the pump to go through a self-test. This should only take about 20 seconds.
15. Press **YES** to PROGRAM. PROGRAM should be highlighted on the screen (or press **YES** to LIBRARY if instructed by your clinician).
16. Press **YES** to RESUME if you still have medication in the container. In this case RESUME should be highlighted on the screen. If you are changing the medication container (bag) at the same time, highlight REPEAT RX and press the **YES** key.
17. Press the **RUN** key when you are ready to start the infusion.

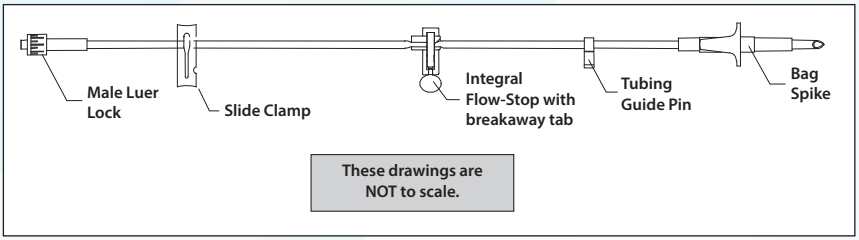
NOTE: If your pump is connected to AC power you can change the batteries without turning off the pump.

## PREPARING YOUR THERAPY

Your clinician will teach you how to prepare your medication and how to attach the administration set. The basic steps are demonstrated below.

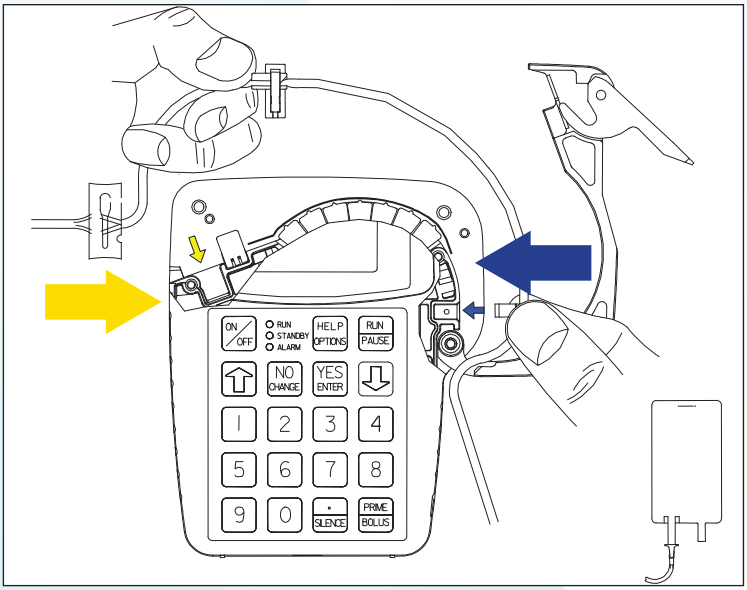
1. Wash your hands thoroughly.
2. Remove the administration set (tubing) from the package.
3. Twist off the break-away tab located on the bottom of the yellow Flow-Stop (see diagram below).
4. Follow your clinician's instructions for inserting the bag spike into the IV bag so that it is not contaminated.

If a Back Check Valve Adapter is provided with your administration set, remove it from the package and connect it to the end of the tubing.




## REMOVING THE ADMINISTRATION SET(TUBING) FROM THE PUMP

1. Open the pump door and remove the blue "Tubing Guide Pin" from its receptacle.
2. Lift the tubing toward the yellow flow-stop to free the tubing from the pump.
3. Dispose of the used IV administration set (tubing) as directed by your clinician.




## PRIMING THE TUBING BY GRAVITY

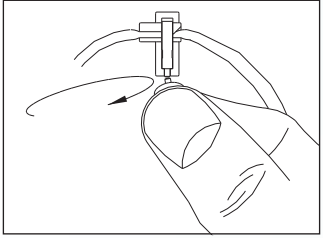
1. Twist and remove the round tab from the yellow Flow-Stop and discard.
2. Verify that the white slide clamp on the tubing is open and moves freely.
3. Insert the spike end of the tubing into the receptacle on the bottom of the IV bag.
4. Turn bag upside down to allow the air to float to the top.
5. Hold the yellow Flow-Stop vertically between your thumb and index fingers and squeeze.

6. While squeezing the yellow Flow-Stop, keep the medication bag upside down and gently squeeze the bag (the blue cap at the end of the tubing may be left in place while priming to avoid contamination).

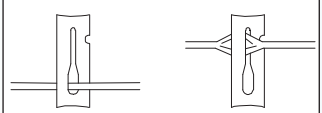
NOTE: If there is a filter on the tubing, hold the filter upright until fluid has completely filled both sides of the filter (do not turn the filter upside down). When both sides are filled with fluid you may lay it down.

7. Completely prime the tubing with fluid until fluid is seen exiting the end of the set and all air is removed.
8. If additional priming is necessary, squeeze the yellow flow-stop again until fully primed then release when done.

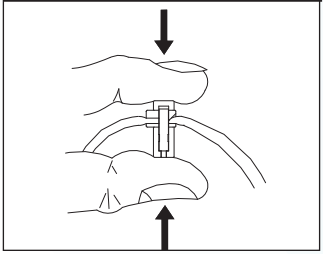
*First, twist and remove breakaway tab from the yellow Flow-Stop*



*Then, open the slide clamp*




*Finally, squeeze the yellow Flow-Stop between your fingers*

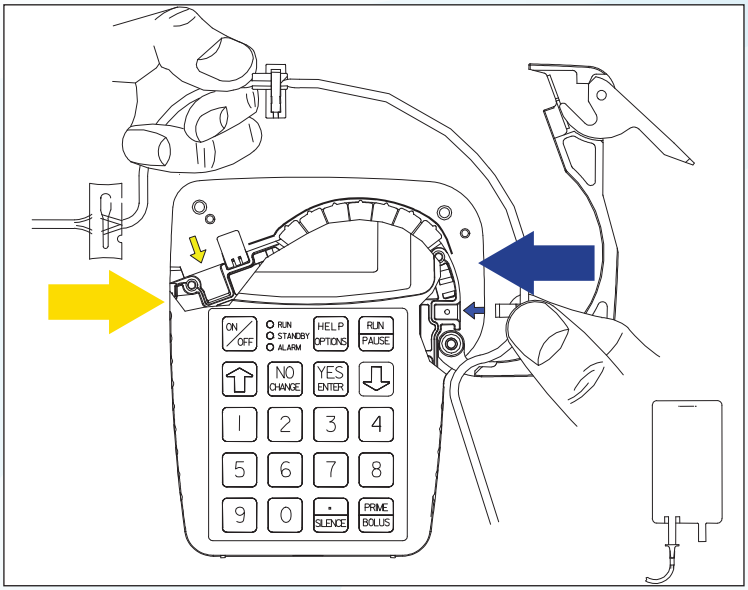


## LOADING THE ADMINISTRATION SET (TUBING) INTO THE PUMP

1. To open the door of the pump, lift the latch on the top of the door.
2. Pull the door up and all the way to the right (refer to the diagram on the next page).
3. Locate the BLUE and YELLOW arrows within the pump as a reference point. These arrows are on the right and left sides of the back plate of the pump.
4. Insert the blue "Tubing Guide Pin" into the tubing guide receptacle (indicated by the blue arrow).
5. Ensure the tubing is in FRONT of the door hinge. There is a notched area on the door hinge for the tubing to exit the pump.
6. Place your finger over the blue "Tubing Guide Pin" to hold it in place.
7. Lay the soft portion of the tubing over the top of the light gray pumping fingers.
8. Place the yellow Flow-Stop into its receptacle (indicated by a yellow arrow), with the longer end down into the receptacle.

CAUTION: Do not press on the top of the yellow Flow-Stop while it is in the receptacle, as this may allow fluid to flow through the tubing.

9. Close the door securely and snap latch shut.
10. Run your hand over the top of the pump to be sure top of door is flush with top of the pump.

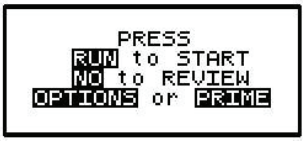



## STARTING A NEW MEDICATION CONTAINER (BAG)

1. If the pump is turned off, turn the pump on by pressing the **ON** key. Wait for the pump to go through a self-test. This should only take about 20 seconds.
2. Press **YES** to PROGRAM. PROGRAM should be highlighted on the screen (or press **YES** to LIBRARY if instructed by your clinician).

3. Press **YES** to REPEAT RX if you have not started infusing from the current medication container. REPEAT RX should be highlighted on the screen. If it is not highlighted, use the **DOWN ARROW** key to highlight REPEAT RX then press the **YES** key.

ALWAYS press **YES** to REPEAT RX when you are going to start a NEW medication bag that has never started infusing. When you select REPEAT RX, the pump may ask questions to confirm and caution that you are resetting the pump for a new bag. Press the **YES** key to all on-screen questions. The pump will then automatically scroll through the program for you to review. Allow the screen to scroll. If you press any key during the scrolling cycle, the screen will stop. If this occurs, press the **YES** key to every field until the following screen is reached.




The final screen will ask you to press the **RUN** key to start the infusion or give you the option to PRIME tubing using the pump. If you are going to PRIME using the pump, skip to the next section: "Priming the Administration Set (Tubing) Using the Pump".

4. If the tubing is already primed, connect the tubing to your IV site without contaminating (as your clinician has instructed).

5. Press the **RUN** key to start the infusion.

## PRIMING THE ADMINISTRATION SET (TUBING) USING THE PUMP

CAUTION: Be sure the tubing is disconnected from your IV site before priming. Priming with the set connected to the IV site could result in overdose and may cause injury or death.

Air can be removed from the IV bag by turning the bag upside down when priming. Air cannot be removed from bottles or vials. They must be hung on an IV pole or comparable device.

1. With the tubing connected to the IV bag, turn the bag upside down so air floats to the top. Gently squeezing the bag during the priming process will assist removing all the air from the bag.
2. Ensure the white clamp on the tubing is open.
3. When in the "RUN to START" screen (shown above), press and release the **PRIME** key. You should now be at the Priming Menu Screen.
4. Press and hold the **PRIME** key. You will hear the pump motor running and you will start to see the fluid moving through the tubing.
5. If there is a filter on the tubing, hold the filter upright until fluid has completely filled both sides of the filter (do not turn the filter upside down). When both sides are filled with fluid you may lay it down.
6. Continue pressing the **PRIME** key down until the tubing is completely filled with fluid, fluid is seen exiting the end of the set, and all air is removed.
7. Release the **PRIME** key when you are finished priming.
8. Press the **YES** key to exit the PRIME function.
9. Connect the tubing to your IV site without contaminating (as your clinician has instructed).
10. Press the **RUN** key to start the infusion.

## RESTARTING AN INTERRUPTED INFUSION

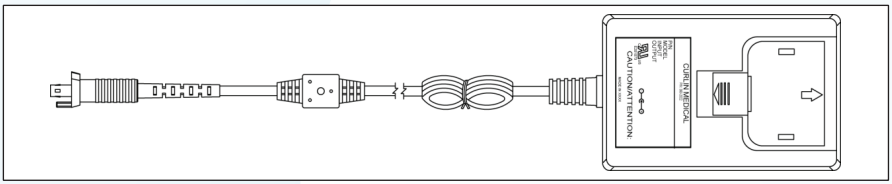
If you ever press the **PAUSE** key before it is time to change your medication bag, this is called an "interrupted infusion." This could be from getting an alarm, turning off the pump between doses or any number of reasons. When you want to restart the same medication bag follow the instructions below.

1. If the pump is turned off, turn the pump on by pressing the **ON** key. Wait for the pump to go through a self-test. This should only take about 20 seconds.
2. Press **YES** to PROGRAM. PROGRAM should be highlighted on the screen (or press **YES** to LIBRARY if instructed by your healthcare clinician).

3. Press **YES** to RESUME if you have not changed the medication container. RESUME should be highlighted on the screen as shown below.

ALWAYS press **YES** to RESUME when you have not changed the medication bag. RESUME maintains the current volume remaining in the pump.

## USING THE AC POWER ADAPTER (POWER CORD)




Your clinician may include an AC Adapter (power cord) for you to use with your pump. It is recommended that you always have "C" cell batteries in the pump even when you are using the power cord. The batteries will then take over powering the pump should there be a power outage or if the cord is removed from the power outlet. The ProCell by Duracell "C" cell batteries are recommended.

1. Turn the pump off when connecting and disconnecting from AC power by pressing the **ON/OFF** key.
2. To connect the power cord to the pump, align the blue tab on the power cord with the matching keyhole at the bottom of the pump. The keyhole and receptacle are marked "POWER" in blue writing.
3. Insert the port of the AC adapter into the designated receptacle with the blue tab fitting into the keyhole.
4. Plug the cord into an electrical outlet.
5. Turn the pump on. During the self-test, watch for the power graph and ensure it says "EXTERNAL" at the top of the power graph. If it reads "INTERNAL", this means that the pump is being powered by the batteries rather than the electrical outlet. Try another outlet to test the function of the adapter. If "INTERNAL" continues to read at the top of the power graph, contact your clinician to have another cord sent to you when appropriate. The AC adapter may not be working properly.
6. Do not pull or carry the pump by the power cord, as this may damage it.
7. When removing the power cord from the pump, pull only on the blue locking sleeve marked "PULL TO RELEASE". Pulling on the cord itself may damage it.

## ALARMS

When an alarm sounds you will hear a beep(s), the red alarm light will flash and the data screen will display the reason for the alarm. To resolve alarm situations refer to the Troubleshooting section. Pressing the **SILENCE** key will silence the alarm for one minute. Pressing the **PAUSE** key will also silence the alarm.

## FREQUENTLY ASKED QUESTIONS

What should I do if I have questions about the pump? Whenever you have questions about the pump or your therapy, you should call your healthcare provider.

How do I move around with the pump? Curlin Medical Pumps have a carry pack specifically designed to allow you to be mobile and active while receiving your therapy. Your healthcare provider will demonstrate how to use the carry pack.

Where do I leave the pump when I want to sleep? Place the pump at your bedside or next to you on the bed. Your clinician may have special instructions for bedtime use of the pump.

How do I bathe or shower during my therapy? The pump is water resistant, but not water proof, so it should be placed outside your tub or shower.

How do I exit the help screen? When the pump is paused and the **HELP/OPTION** key is pressed, a help message will appear. Press the **HELP/OPTIONS** key again to exit the help screen.

Where does the remote "Bolus Cable" (with a green ring) plug into on the pump? The port on the side of the pump (labeled BOLUS/DATA) is for the remote "Bolus Cable" with switch. The bolus cable is inserted and removed the same way as the AC adaptor.

Approximately how long will new batteries last? Battery life depends on the usage. The following times are approximate only:

- Nominal 85 hours at a rate of 2 ml/hr
- Nominal 30 hours at a rate of 125 ml/hr
- Nominal 10 hours at a rate of 400 ml/hr

However, pressing the keys frequently will illuminate the display and the battery life will be shortened. To extend battery life, the AC Adapter may be used at night.

How can I determine how much battery power is remaining in the pump while the pump is running? If you have the words "Power Check" listed next to the **NUMBER 2 KEY**, press it while the pump is running and the display will show you a bar graph indicating the battery power. This will remain illuminated for several seconds and will not affect the function of the pump. Otherwise, press the **HELP/OPTIONS** key and arrow down to "PWR CK" and press the **NO** key to change the field from OFF to ON. Then press the **YES** key to enter the menu which will show you the power bar graph. After several seconds the menu will revert to the Options screen. Press the **YES** key to accept options.

Are the " C" cell batteries in the pump rechargeable? No.

## TROUBLESHOOTING:

NOTE: For all alarms except "INFUSION COMPLETE", follow these instructions before proceeding to the RESOLUTION section below: To silence and exit Alarm/Alert screens, press the **PAUSE** key, press **YES** to RESUME, then resolve the alarm. When ready to resume the infusion, press **RUN** to start the infusion.

## LCD DISPLAY/RESOLUTION/POSSIBLE CAUSEs

| | |
|---|---|
| **INFUSION COMPLETE** | Press **PAUSE**, attach new solution container, highlight REPEAT RX and press **YES** if instructed to do so by your clinician. The program will auto-scroll (or confirm each field by pressing **YES**). If therapy is complete, turn pump off. |
| **AIR-IN-LINE** | Press the **PRIME** key, then follow on-screen instructions to remove air from the tubing and IV bag if instructed to do so by your clinician. CAUTION: Disconnect set from your access site before priming. Sets with in-line ASVs must be primed on the pump. |
| **ALARM DOWN OCCLUSION** | Down occlusions auto-correct when occlusion is resolved without the need to press **PAUSE**. Check the tubing from pump to your IV site for cause, then correct obstruction if instructed to do so by your clinician. |
| **ALARM UP OCCLUSION** | Check tubing from pump to IV bag for cause, then correct obstruction if instructed to do so by your clinician. Possible causes: glass container without vented spike adapter, line kinked in pump door, bag empty, bag not spiked properly. |
| **ALARM HIGH UP PRESSURE** | Check for excessive pressure on IV bag. Causes: uneven fluid distribution within lockbox or carrying pouch, object pressing on solution container. |
| **ALARM SET NOT INSTALLED** | Use only Curlin administration sets. Check that set is installed properly. Refer to Instructions for Use in set package or Installing Administration Set section in this instruction booklet. Possible causes: tab not removed from yellow Flow-Stop, blue guide pin or yellow Flow-Stop not properly seated in receptacles, no set installed. |
| **ALARM UNATTENDED** | The pump will alarm when left idle for 2 minutes. Press **RUN** to start the infusion or press **OFF** to power down the pump. |
| **ALARM REPLACE SET 3** | Replace set and prime if necessary. Possible causes: flattening of the soft pumping segment of the set due to overuse, use of a glass container without a vented spike adapter, excessive plunger stiction with syringe use. |
| **ALARM REPLACE SET 4** | Equalize the pressure in the set by priming if instructed to do so by your clinician (disconnect from your IV site). Turn pump OFF then ON to reset the sensor prior to resuming the infusion. |
| **ALARM DOOR OPEN** | Check placement of the administration set and close pump door properly. |
| **ALARM EMPTY BATTERY** | Turn pump off by pressing the **OFF** key. Install 2 new batteries and turn pump back on. |
| **ERROR CODE** | If an error code occurs, turn pump off and consult your clinician, or call the toll free number on the back of the pump if instructed to do so by your clinician. |

## SPECIAL INSTRUCTIONS/CONTACT INFO:

MOOG®

Enhancing Healthcare. Enriching Lives.

Contact your clinician if further instructions are needed, or call the Clinical Support line if instructed to do so by your clinician.

Clinical Support 1-800-970-2337
www.moog.com/medical

Moog is a registered trademark of Moog, Inc. All trademarks indicated herein are the property of Moog, Inc. and/or its subsidiaries.
© 2016 Moog, Inc. All rights reserved. MD 57849 Rev. A

3117_REV_101916