

Operator's Manual

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Flo-Gard[®] 6300

Dual Channel Volumetric Infusion Pump

Baxter

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Operator's Manual

Flo-Gard[®] 6300

Dual Channel Volumetric Infusion Pump

Product Code: 2M8048

Baxter

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Introduction

The Baxter Flo-Gard[®] 6300 Dual Channel Volumetric Infusion Pump can deliver a wide variety of fluids over a broad range of infusion rates. The device's features include:

- Uses standard Baxter solution administration sets.
- Two separate pump channels which allow the Flo-Gard[®] 6300 device to do the work of two conventional pumps, resulting in space savings.
- Easy to load, spill-resistant pump mechanisms.
- Pumps a wide variety of fluids, including blood.
- Occlusion sensors that detect both upstream and downstream restrictions.
- Flow check information display that shows resistance to flow.
- Ultrasonic air-in-line detectors.
- Safety clamp mechanisms which prevent accidental free flow.
- Locking control panel which prevents tampering.
- Each pump channel features an independent secondary medication program that automatically switches over to the primary program upon completion.
- Volume-Time programming that automatically calculates flow rate.
- Automatic self-test routine that checks for proper function before use.
- Five hour memory which retains infusion data after power-off.
- Easily replaceable fuse, battery, and power cord.

Physical Description

Front Panel Controls and Indicators

Items 1 through 9 are associated with Pump 1 and are described below. The controls associated with Pump 2 are identical and function in exactly the same manner. Items 10 through 23 are common to the operation of both pumps. All front panel items are shown in Figure 1.

ITEM	FUNCTION
1. Pump 1 ON-OFF/CHARGE Key	Turns Pump 1 on and off. The internal battery charger remains on regardless of the ON-OFF/CHARGE key as long as the device is plugged in.
2. Pump 1 STOP Key	Stops Pump 1 until further instructions are given. The message STOPPED appears when the key is pressed. An alert will sound if Pump 1 is stopped for more than two minutes. Clears all programming alerts while pump is running.
3. PUMP 1 Key and indicator	Allows keyboard and other controls common to both pumps to accept data for Pump 1 programming. Yellow LED lights to indicate that Pump 1 is selected.
4. Pump 1 Door Latch	Opens and closes Pump 1 door.
5. Pump 1 Main Display	Shows rate, volume to be infused (VTBI) and total volume infused for Pump 1 primary and secondary infusion programs.
6. Pump 1 ALARM LED	Red LED that blinks on and off during a Pump 1 alarm, accompanied by a visual message display and a repeated sequence of three beeps. An alarm indicates that Pump 1 requires immediate attention.
7. Pump 1 PUMPING LED	Green LED which is constantly lit while Pump 1 is pumping.
8. Pump 1 ALERT LED	Yellow LED which lights during Pump 1 alerts, accompanied by a message display and a repeated single beep. An alert indicates that Pump 1 needs routine attention.
9. Pump 1 Message Display	Shows all Pump 1 messages.
10. BACKLIGHT key	Backlights the displays when pressed. Pressing the key again turns the backlight off. If the device is operating on battery power, the backlight remains on for 60 seconds each time the BACKLIGHT key is pressed.
11. SILENCE Key	Temporarily silences an audible alarm or alert for two minutes, unless an alarm occurs on either pump within the two minute silence period. All visual alarm or alert information remains displayed.
12. TOT VOL/STATUS Key	Displays total volume delivered and current settings for each pump.
13. CLEAR TOT VOL Key	Resets the total volume delivered of the selected pump to zero when the pump is stopped.
14. PRI RATE Key	Allows programming of the primary infusion rate for the selected pump.
15. PRI VTBI Key	Allows programming of the primary VTBI for the selected pump.
16. PRI START Key	Starts the primary infusion for the selected pump.
17. Numerical Keyboard	The numerical values for rate and VTBI are entered with these keys.
18. TIME Key	Enters desired time interval for an infusion during Volume-Time programming.
19. CLR Key	Clears any programming values currently being entered.
20. SEC RATE Key	Allows programming of the secondary infusion rate for the selected pump.
21. SEC VTBI Key	Allows programming of the secondary VTBI for the selected pump.

Physical Description (continued)

ITEM	FUNCTION
22. SEC START Key	Starts the delivery of the secondary solution for the selected pump.
23. CHARGING LED	Green LED, always lit while the unit is plugged in and the battery is charging.

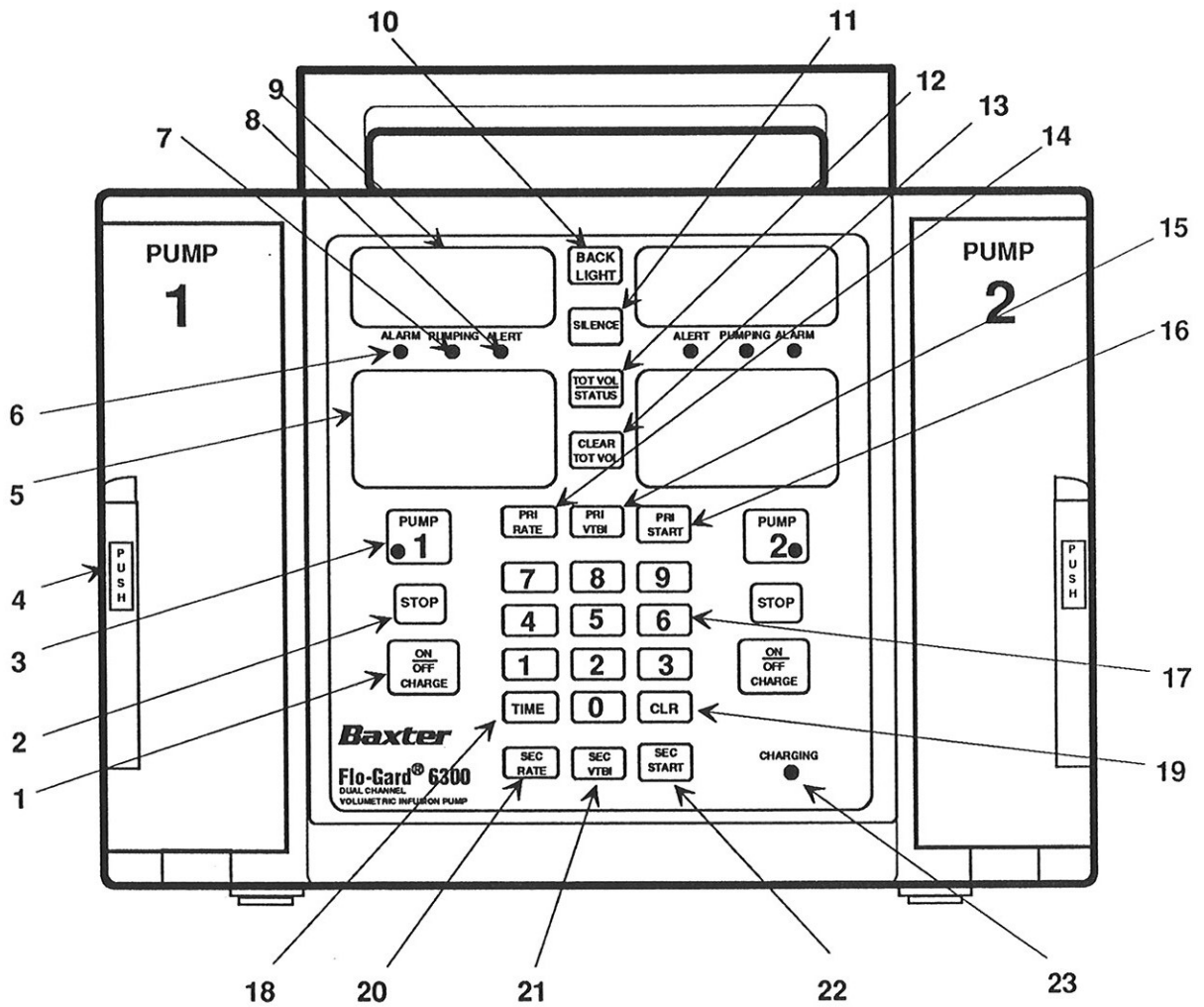


Figure 1. Front View

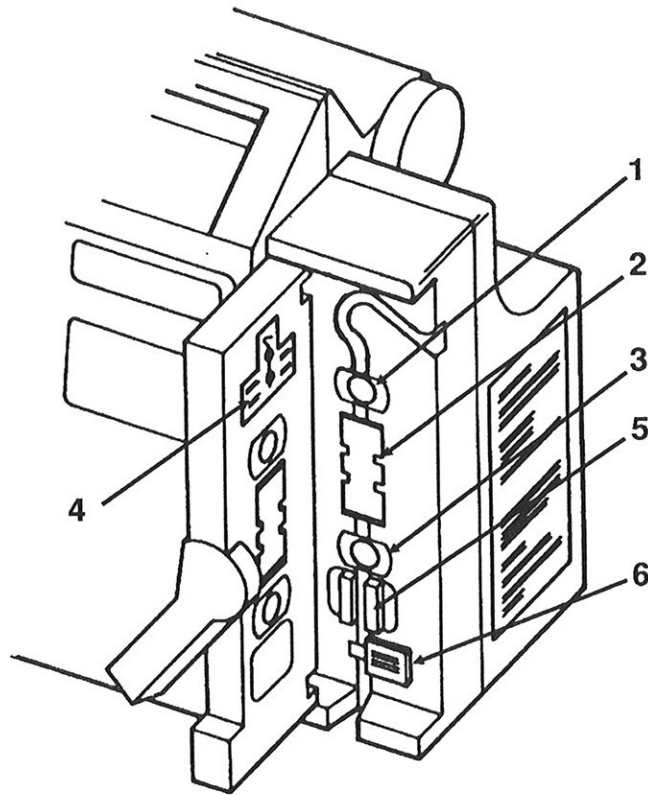


Figure 2. Pump 2 With Door Open

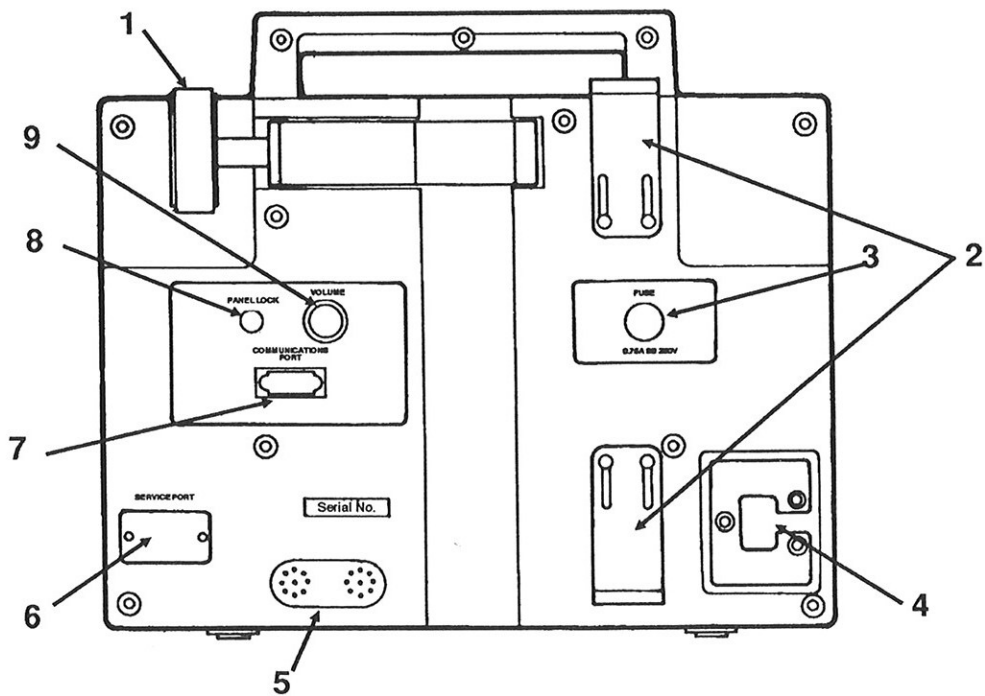


Figure 3. Rear View

Pump Features

Figure 2 shows Pump 2 only. Pump 1 has identical features, which function in the same manner.

- | | |
|--------------------------------|--|
| 1. Upstream Occlusion Sensor | Detects a complete tubing restriction upstream of the pump. |
| 2. Pump Mechanism | Linear peristaltic pump mechanism. |
| 3. Downstream Occlusion Sensor | Detects tubing restrictions downstream of the pump. |
| 4. IV Set Loading Diagram | Identifies the IV set loading path in the pump. |
| 5. Air Sensor | Detects air bubbles in the IV tube. |
| 6. SAFETY CLAMP | Prevents accidental fluid flow when the pump door is opened. |

The following items are located on the rear of the Flo-Gard[®] 6300 device and are shown in Figure 3.

- | | |
|------------------------------------|--|
| 1. IV Pole Clamp | Secures the Flo-Gard [®] 6300 device to the IV pole. |
| 2. Power Cord Clips | Store power cord during battery operation and device storage. |
| 3. FUSE | Fuse compartment. |
| 4. Power Cord | Removable only by authorized service personnel. |
| 5. Audio Speakers | For generation of audible alarm and alert beeps. |
| 6. SERVICE PORT | For authorized service personnel use only. |
| 7. COMMUNICATIONS PORT | Reserved for future use. The communications port contains nurse call connections which can be enabled by authorized service personnel. |
| 8. PANEL LOCK Switch | When pressed, it disables front panel controls, except BACKLIGHT and TOT VOL/STATUS. |
| 9. VOLUME Knob | Adjusts loudness of audible alarm and alert beeps. The beeps cannot be turned completely off. |
| Battery Compartment
(Not shown) | Allows easy access to the battery by authorized service personnel only. Located on the underside of the Flo-Gard [®] 6300 device. |

Operating Instructions

Precautions

- **DANGER - Possible explosion hazard if used in the presence of flammable anesthetics.**
- Operate device from 115 V, 60 Hz, hospital grade earth-grounded outlet only.

Loading the Pumps

1. Read and understand this manual before using the Flo-Gard[®] 6300 device.
2. Plug device into a 115 V, 60Hz grounded outlet, unless temporary battery power is required.
Note: The procedure for preparing and loading the administration set (steps 3 through 10) is the same for Pump 1 and Pump 2.
3. Prepare fluid container and administration set according to the directions accompanying the products. Ensure all air is expelled from the set.
Notes: Use only with standard Baxter soft tubing administration sets that contain an "s" as the last character of the code number (for example: 2C5537s).
When infusing fluid through a central venous catheter, Baxter recommends that sets with a Luer lock adapter be used.
If using a filter set, use only filters which are recommended for use with pumps. Read and follow instructions of the filter to be used.
To use the automatic piggyback function, use only a Continu-Flo[®] set from Baxter as the primary line with a compatible secondary set for the secondary line.
4. Close set regulating clamp.
5. Raise pump door latch to horizontal position and pull door open.
6. Press safety clamp to open position.
7. Load IV set through guide channel from top to bottom as shown in Figure 4, assuring that no slack exists in the tubing. Ensure that the IV tubing is loaded straight through the pump mechanism tubing guides and safety clamp before closing the pump door.
8. Close pump door. If resistance is felt when closing the door, or if the door cannot be closed, check for a misloaded IV set.
9. Open set regulating clamp completely. Verify that no drops are falling in drip chamber. If flow is observed, close regulating clamp and recheck IV set loading and verify that the proper administration set is being used. If flow is again observed, do not use the pump. Have it inspected by service personnel.
Note: Always close the administration set regulating clamp(s) before opening pump door and removing set.
10. Attach set to venipuncture or other IV access.
11. Turn pump(s) on by pressing appropriate ON/OFF CHARGE key(s). Verify that the pump(s) performs the following self-test:
 - a. All segments of the Pump 1 and Pump 2 message displays illuminate momentarily. All segments of the main display of the powered-on pump illuminate momentarily.
 - b. The occlusion detection level is momentarily displayed in the Pump 1 message display (LEVEL 1, 2, or 3). If

the Audible Switchover option is selected, the message AUDIBLE SWITCHOVER appears in the Pump 2 message display at the same time.

c. If Auto Restart and Flow Check are enabled, the message AUTO RESTART appears for one second following the occlusion detection level display in the Pump 1 message display.

d. Three separate audible tones sound.

e. If the Flo-Gard[®] 6300 device is plugged into an AC outlet, the CHARGING LED is illuminated.

12. Set VOLUME knob on the rear of the device to the desired level.

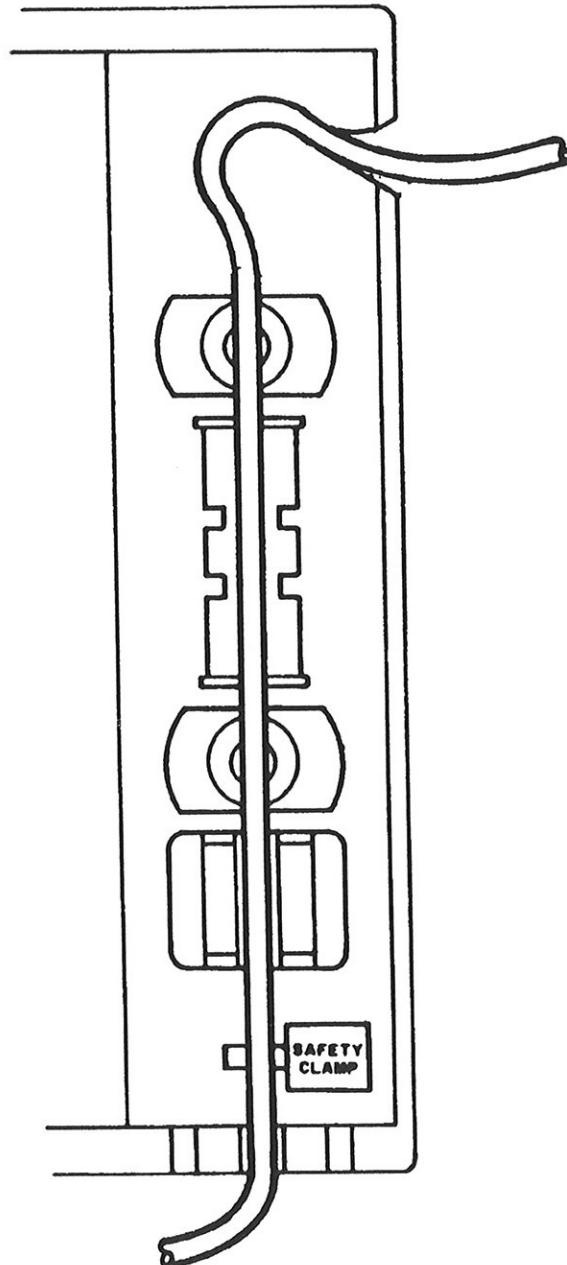


Figure 4. IV Set Loading Diagram

Programming the Pumps

Note: The procedures for programming Pump 1 and Pump 2 are identical.

1. Press PUMP 1 or PUMP 2 as appropriate to select the desired pump.
2. Set primary flow rate as follows (refer to Figure 5):
 - a. Press PRI RATE key (#14, Fig. 5)
 - b. Program desired flow rate (in mL/hr) on keyboard (#17, Fig. 5). Zero cannot be entered as the first digit. A selected flow rate higher than the allowable maximum results in the message "Hi" appearing in the PRI RATE display. To correct a mistake, press CLR (#19, Fig. 5) or PRI RATE again and re-enter correct rate. The selected flow rate is displayed in the main display of the selected pump.
3. Set primary volume to be infused as follows:
 - a. Press PRI VTBI (#15, Fig. 5).
 - b. Program desired VTBI (in mL) on keyboard. Set VTBI equal to the amount of fluid in the container or less if desired. To correct a mistake, press CLR or PRI VTBI again and re-enter the correct VTBI. The selected VTBI is displayed in the main display of the selected pump.
4. To read total volume infused and/or review infusion settings, press TOT VOL/STATUS key (#12, Fig. 5). VOLUME INFUSED is displayed first, followed by RATE and VTBI.
5. If necessary, reset the volume previously infused on the selected pump to zero by pressing CLEAR TOT VOL (#13, Fig. 5).
6. Press PUMP 1 or PUMP 2 as appropriate. Then press PRI START (#16, Fig. 5). The green PUMPING LED lights and a moving bar appears next to the appropriate flow rate setting. Confirm flow by checking for drops in the administration set drip chamber. If Auto Restart is enabled and Flow Check is not enabled, AUTO RESTART is displayed in the Pump 1 message display.

Note: Always verify programmed information prior to starting the selected pump.
7. If it is necessary to program the other pump, press its ON-OFF/CHARGE key and repeat steps 1 through 6.
8. To halt an infusion, press the appropriate STOP key. The selected pump's PUMPING LED goes out and STOPPED appears in the message display. If the pump is not restarted within two minutes, an audible alert sounds. Restart pump by pressing the PUMP 1 or PUMP 2 key as appropriate, and then pressing the appropriate START key.
9. When a pump has delivered the selected volume, the pump sounds an alert beep and switches to a KVO (Keep Vein Open) rate of 5 mL/hr or the current rate setting, whichever is lower.

Remove set(s) from pump(s) as follows:

 - a. Press the appropriate STOP key.
 - b. Close administration set regulating clamp.
 - c. Open appropriate pump door.
 - d. Press SAFETY CLAMP to open position.
 - e. Check that no fluid is flowing in set, then remove set from pump.
10. To turn a pump off, press the appropriate ON-OFF/CHARGE key.

Programming the Pumps (continued)

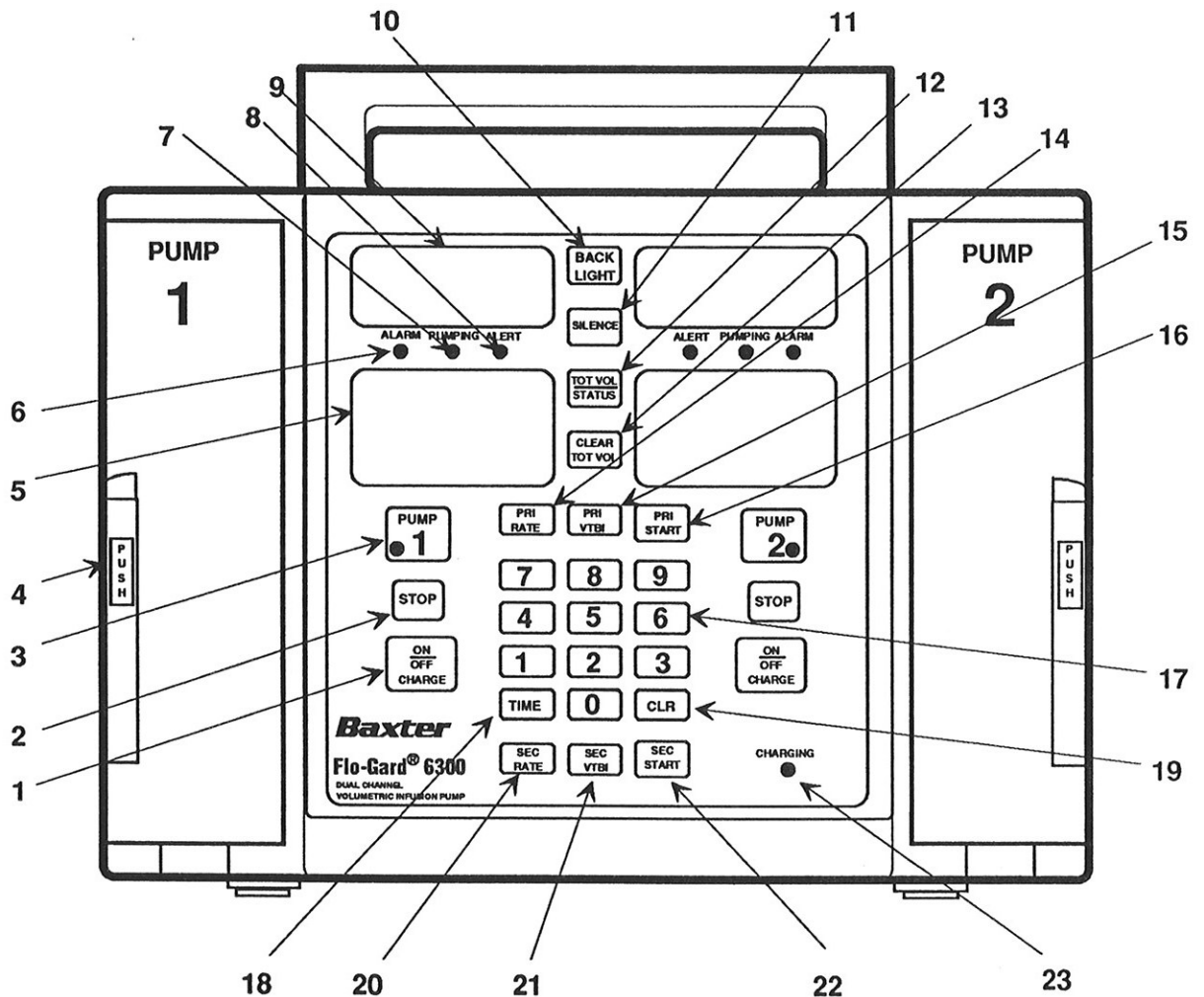


Figure 5. Front View

Starting A Secondary Program

Note: The procedures for programming a secondary infusion are identical for Pump 1 and Pump 2.

1. Prepare secondary fluid container and administration set according to the directions accompanying the products. Ensure all air is expelled from the secondary set. To perform automatic piggybacking, a Continu-Flo[®] set from Baxter should be used as the primary set.
2. With the selected pump stopped and the primary program already entered, attach the secondary set to the injection site of the primary set above the device.
3. Lower primary container with the hanger accompanying the Baxter secondary set.

4. Set secondary flow rate as follows:
 - a. Press PUMP 1 or PUMP 2 as appropriate to select the desired pump.
 - b. Press SEC RATE key (#20, Fig. 5). The right-hand side of the selected pump's main display now shows secondary infusion data.
 - c. Enter desired flow rate (in mL/hr) for secondary solution. To correct a mistake, press CLR or SEC RATE again and re-enter the correct value.
5. Set secondary volume to be infused as follows:
 - a. Press SEC VTBI key (#21, Fig. 5).
 - b. Enter the desired fluid amount (in mL) on the keyboard. Set VTBI equal to the volume of fluid in the container. To correct a mistake, press CLR or SEC VTBI again and re-enter the correct value.
6. Open secondary set on/off clamp. Check that the primary set regulating clamp is open. Verify that no drops are falling in the primary or secondary drip chambers.
7. Press SEC START (#22, Fig. 5) to begin infusion. Verify that drops begin falling in the secondary set drip chamber only. When the VTBI of the secondary program reaches zero, the pump will revert to the primary program. When this happens, if the primary flow rate is set above 999 mL/hr, be sure to close the secondary set on/off clamp. If the AUDIBLE SWITCHOVER option is enabled, the alert message SEC COMPLETE will appear in the appropriate message display and an intermittent alert beep will sound. Pressing any key that is accepted for that pump, or unlocking the front panel, will clear the alert.
8. Repeat the procedure for the other pump if a secondary program is desired on that pump.

Using the Volume-Time Programming Feature

The Volume-Time Programming feature allows you to select a VTBI, and the amount of time over which the infusion is to take place. The device automatically calculates the required flow rate. If the calculated rate is higher or lower than the device's settings, the message "Hi" or "Lo" appears as appropriate. Volume-Time Programming can be used for primary and secondary infusion programming. In the procedure below, the keys to press for secondary programming are shown in parentheses.

Note: The Volume-Time Programming procedures are identical for Pump 1 and Pump 2. Refer to Figure 5 for key locations.

1. Press the appropriate ON-OFF/CHARGE key.
2. Press PUMP 1 or PUMP 2 as appropriate to select the desired pump.
3. Press the PRI VTBI key (or SEC VTBI, if you are programming a secondary infusion).
4. Program the desired VTBI on the keyboard. To correct a mistake, press the CLR key and re-enter the correct VTBI.
5. Press the TIME key. Enter the amount of time (up to 99 hours and 99 minutes) over which you wish the infusion to take place. To correct a mistake, press the CLR key or TIME key again and re-enter the correct time.
6. Press the PRI RATE (or SEC RATE) key. The device calculates the flow rate required to deliver the desired VTBI in the specified time period. Fractional flow rates are rounded down to the nearest milliliter.

If the calculated flow rate is higher than the device's capabilities, the message "Hi" is displayed. To correct a "Hi" message, repeat the procedure from step 3 and enter a longer time period if appropriate.

If the calculated rate is too low, the message "Lo" is displayed. To correct a "Lo" message, repeat the procedure from step 3 and enter a shorter time period if appropriate.

7. Verify that the calculated rate is acceptable before pressing PRI START (or SEC START) to begin the infusion.

Changing Flow Rates (Titrating) While Pump Is Running

To change the primary or secondary flow rate, follow the procedure given below.

1. Press PUMP 1 or PUMP 2 as appropriate to select the desired pump.
2. Press PRI RATE while pump is running in primary mode. TITRATE appears in the selected pump's message display and an alert beep sounds periodically.
3. Enter the new flow rate on the keyboard. If the primary is titrated above 999 mL/hr, ensure that the secondary set on/off clamp is closed. If a new rate higher than the allowable maximum is entered, the message "Hi" appears in the PRI RATE display.
4. Press PRI START. The pump begins delivering fluid at the new rate, the alert beep stops, and the TITRATE message disappears.
5. To change secondary flow rate, follow the above procedure using the SEC RATE and SEC START keys instead of the PRI RATE and PRI START keys.

Locking The Front Panel

The device front panel can be locked during pumping to prevent tampering. It can be unlocked at any time. The TOT VOL/STATUS and BACK LIGHT keys are not affected by the lock-out. This allows routine infusion data checks while the front panel is still locked. If either pump is stopped due to an infusion alarm or an opened door, the panel must be unlocked to restart the infusion.

To lock the panel: While pump(s) is running, press the PANEL LOCK switch on the rear of the device for at least one second. The message 'Loc' appears in the main display of pumps that are powered on.

To unlock the panel: Press the PANEL LOCK switch again. The 'Loc' message disappears.

Battery Powered Operation

The Flo-Gard[®] 6300 device automatically switches to battery operation when the AC power is interrupted or the device is unplugged. When operating on battery power, BATTERY appears in the Pump 2 message display. The battery automatically recharges whenever the device is plugged in. It is recommended that the device be plugged into an AC outlet during storage to help maintain batteries at full charge. Any Pump 2 alarm or alert messages will supersede the BATTERY display.

FLOW CHECK Information Display

The FLOW CHECK feature displays the resistance to flow. There is a separate display for each pump. As shown in Figure 6, the FLOW CHECK feature displays a dashed line that stretches from left to right as the resistance to flow increases. The left side of the display is labeled "norm" and corresponds to the pressure when the infusion was initially started or manually restarted after an alarm. The right side of the display is labeled "occ" and corresponds to the next occlusion threshold. If the FLOW CHECK option is selected, the FLOW CHECK display appears when the pump is running. The FLOW CHECK feature display does not appear on Pump 2 if the device is running on the internal battery. Whether or not the FLOW CHECK option is selected, the display may be momentarily called up at any time by pressing the CLR and TOT VOL/STATUS keys simultaneously.

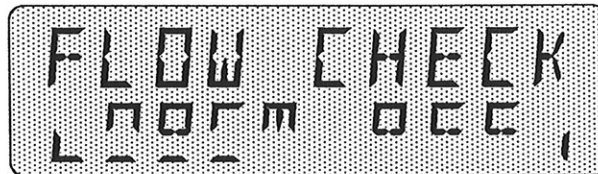


Figure 6. Flow Check Display

Cleaning and Storage

The exterior of the Flo-Gard[®] 6300 device may be cleaned with a soft cloth, sparingly dampened with any of the cleaners listed below. Follow manufacturers' dilution instructions for concentrated cleaners. Devices that have been used should be cleaned/disinfected with an agent from the list below before use on another patient.

If spillage into either pump mechanism occurs, clean the mechanism immediately by wiping with a soft cloth dampened with any of the cleaners listed below.

Cleaner	Manufacturer
LpH, Septisol	Vestal Labs
Cidex 7	Surgikos
Super Edisonite	Edison Chemical Co.
Clinidine	Clinipad Co.
Betadine	Purdue Frederick
A solution of 10% bleach and water	
Soapy water	
Isopropyl alcohol up to 95%	

Do not clean, disinfect or sterilize the internal parts or the device by autoclaving, or with ethylene oxide gas. Doing so may damage the device and void the warranty.

Do not use the following chemicals on the device, they will damage the front panel: acetone, ammonia, benzene, hydroxytoluene, methylene chloride, n-alkyl dimethyl ethylbenzyl ammonium chloride, and ozone.

Do not store the device with either ON-OFF/CHARGE key ON. The battery may discharge completely.

Alerts and Alarms

The following chart describes each pump's alarm and alert messages along with the cause of each.

Alert Message	Flow Status	Alert Condition
STOPPED	No flow	Pump has been in STOPPED mode for two minutes.
KVO PRI VTBI =0	KVO	Primary VTBI has been delivered. The pump has switched to a KVO rate of 5 mL/hr or programmed rate, whichever is less.
TITRATE	No change until procedure is complete	Flow rate is being changed while pump is running. Pump will remain in TITRATE alert condition until the appropriate START key is pressed.
PRI RATE =0	No flow	A primary flow rate of zero has been entered. The pump will remain in this alert condition until a non-zero primary flow rate is entered and the PRI START key is pressed.
BATTERY LOW with intermittent alert beep	No change	Battery needs recharging. Pumps will stop operating in approximately fifteen minutes unless unit is plugged into an AC outlet.
SEC PROGRAM	No change	Secondary program data is being entered while pump is running. Pump will remain in SEC PROGRAM alert condition until SEC START key is pressed.
SEC RATE=0	No flow	A secondary flow rate of zero has been entered. The pump will remain in this alert condition until a non-zero secondary flow rate is entered and the SEC START key is pressed.
SEC COMPLETE with intermittent alert beep	Secondary switches to primary	The secondary infusion is complete and the pump has switched back to the primary program. To exit this alert condition, press any key that is accepted for the pump (including unlocking the panel) while the SEC COMPLETE message is displayed.
SEC VTBI=0	No flow	A secondary VTBI of zero has been entered. The pump will remain in this alert condition until a non-zero secondary VTBI is entered and the SEC START key is pressed.
FLOW RATE	No flow	During Volume-Time Programming, if a flow rate outside the device's capabilities is calculated, the message Hi or Lo will be displayed in the rate display. If an attempt is made to start the pump with either of these messages displayed, a FLOW RATE alert will be triggered. To exit this alert condition, reprogram the pump for a rate within the range selected through the configuration option and press the appropriate START key.
CHECK VTBI	No flow	A VTBI outside the acceptable range has been entered. To exit this alert condition, enter a VTBI within the range selected through the configuration option and press the appropriate START key.

Alerts and Alarms (continued)

Alarm message	Flow status	Possible Cause
AIR	No flow	a. Air bubble at detector b. Empty fluid container c. No IV set in pump
Note: If pump detects air, purge all air from IV set.		
OCCLUSION	No flow	Closed distal clamp, stopcock, clogged filter or other blockage downstream of the pump.
UPSTREAM OCCLUSION	No flow	Closed clamp or other blockage upstream of the pump.
DOOR OPEN or DOOR OPEN CLOSECLAMP	No flow	Pump door not fully closed. The door latch must be fully lowered to a vertical position. This message can be changed by authorized service personnel so DOOR OPEN and CLOSECLAMP are displayed as a reminder to the user to close the set clamp while the pump door is open.
BATTERY LOW with rapid three-beep alarm	No flow	Battery power has been exhausted. Plug device into AC outlet to restore operation and recharge battery.
NO TUBE Alarm	No flow	The IV set has not been loaded or has been loaded incorrectly. To exit this alarm, load the IV set correctly.
FAILURE in message display with code number in main display	No flow	Pump-specific failure. Press appropriate ON-OFF/CHARGE key twice to reset. If FAILURE does not clear, record the failure code number, remove the device from use and have it serviced.
COMMON FAILURE in left message display and code number in right SEC VTBI display	No flow	General failure. Press both ON-OFF/CHARGE keys twice to reset. If COMMON FAILURE does not clear, record the failure code number, remove the device from use and have it serviced.

Note: The Flo-Gard® 6300 device stores the last 10 alarm codes in its memory. To recall the stored alarm codes, press SILENCE and TOT VOL/STATUS simultaneously. The alarm code that occurred most recently will be displayed. To scroll back through the other stored alarm codes, press CLEAR TOT VOL within one second. The Alarm Recall mode is exited automatically if the CLEAR TOT VOL key is not pressed within one second. The alarm log can be cleared for each pump independently through the configuration option by authorized service personnel.

Technical Specifications

Catalog Code Number	2M8048
Description	Dual channel linear peristaltic volumetric infusion pump
Administration Set	Baxter standard administration sets with "s" suffix
Keep Vein Open (KVO) Rate	5 mL/hr or programmed rate, whichever is less
Nurse Call	Standard feature that can be activated by authorized service personnel.
Battery	12 Volt, 3.2 Ah sealed lead acid
Battery Life	-Approximately 6 hours with one pump running at a rate from 1 to 1400 mL/hr -Approximately 4 hours with both pumps running at rates from 1 to 1400 mL/hr
Battery Recharge	8 hours for complete recharge
AC Power Requirements	110/120V, 60 Hz
Power Cord	2.9 m (9 ft) long, with Hospital Grade plug
Fuse	0.75 A, 250V, SB, 6.35 mm (1/4 in) x 31.8 mm (1-1/4 in)
Leakage Current	Less than 50 microamps (using UL-544 specified test methods)
Weight	Approximately 8.2 kg (18 lbs)
Dimensions	33 cm W x 21 cm D x 29 cm H (13" W x 8.3" D x 11.4" H)

Notes: The remainder of the specifications listed here can be set by authorized service personnel to best suit the requirements of the hospital.

To view the settings, press TIME and TOT VOL/STATUS simultaneously for one second while both pumps are stopped. The message CONFIGURE will appear in the Pump 1 message display. A parameter description will appear in the first line of the Pump 2 message display, and the setting will appear in the second line. The SEC START key will access each setting consecutively. To exit the inspection mode, press TIME and TOT VOL/STATUS simultaneously.

If there is any question regarding the device's current settings or applicability for a particular clinical application, the operator and facility professionals should verify that the settings are appropriate. The configuration settings can be changed *only* by authorized service personnel.

Flow Rate Range	Primary program: 1 - 1999 mL/hr in 1 mL increments on each channel. Upper limit can be set by authorized service personnel. Secondary program: 1 - 999 mL/hr in 1 mL increments on each channel.
VTBI Range	1 - 9999 mL for both primary and secondary of each channel. Upper limit can be set by authorized service personnel.
Air-in-Line Detection	Factory set to NORM, which causes the device to alarm on air bubbles approximately 75 μ L or larger. The MIN setting causes the device to alarm on air bubbles approximately 50 μ L or larger.
Occlusion Detection	The occlusion level setting is displayed momentarily after the self test when the device is first powered on. This setting, which represents the initial distal occlusion alarm pressure, is factory set to LEVEL 1. The possible settings are: LEVEL 1 (approximately 7 psi (362 mm Hg)) LEVEL 2 (approximately 12 psi (620 mm Hg)) LEVEL 3 (approximately 17 psi (879 mm Hg))

Technical Specifications (continued)

Audible Switchover	If the Audible Switchover (AUDIB SWI) option is set to ON, an audible and visual alert is triggered and the message SEC COMPLETE is displayed when either pump completes a secondary infusion and switches over to its primary program. The factory setting for AUDIB SWI is OFF.
Auto Restart	If both the Auto Restart and Flow Check features are enabled, the message "AUTO RESTART" is displayed for one second after the self test and occlusion level display when the device is first powered on. If Auto Restart is enabled and Flow Check is not enabled, AUTO RESTART is displayed in the Pump 1 message display. The Auto Restart setting determines the number of times the pumps will restart after a downstream occlusion occurs, if the occlusion is relieved within a certain time period. The Auto Restart feature will not allow pressure to rise above the alarm threshold. With the factory setting of 3, the pumps will restart an infusion up to three times if the occlusion is relieved. Authorized service personnel can change the number of auto restarts to any number from 1 to 9, or disable the auto restart feature by setting it to 0.
Close Clamp	If the Close Clamp option is set to ON, the message DOOR OPEN/CLOSECLAMP is displayed in the appropriate message display whenever the pump door is open. The CLOSECLAMP message is a reminder to the user to close the set clamp when the pump door is open. The factory setting for this option is OFF.

Warranty And Service Information

Warranty

Baxter Healthcare Corporation warrants that the equipment shall be free from defects in material and workmanship when delivered to the original purchaser. Baxter Healthcare Corporation's sole obligation shall be limited to repair or replacement, at Baxter's option and expense, of the defective part or unit for a period of one year following the date of initial delivery. Warranty for the replaceable battery pack is limited to a period of six months under normal use and service.

THERE ARE NO OTHER WARRANTIES INCLUDING ANY IMPLIED WARRANTY AND ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WHICH EXTEND BEYOND THE DESCRIPTION OF THE PRODUCT AND THOSE EXPRESSLY SET FORTH IN ITS LABELING. UNLESS USED ACCORDING TO THE DIRECTIONS ACCOMPANYING THE PRODUCT, ALL WARRANTIES ARE SPECIFICALLY EXCLUDED. In no event shall Baxter Healthcare Corporation be responsible for incidental, consequential or exemplary damages. Modification, alteration, recalibration or abuse, and service by other than a Baxter Healthcare Corporation authorized representative may void the warranty.

Service Information

While under Baxter Healthcare Corporation Warranty, Service Agreement (optional), or lease agreement, the instrument must not be opened by unauthorized personnel.

To contact Baxter Healthcare Corporation Customer Service Division for service and repair information for all instruments, call 1-(800) THE PUMP.

Shipping costs for all units returned to Baxter Healthcare Corporation shall be paid by the customer. The unit must be packed in its original container or in another Baxter approved container that will provide adequate protection during shipment. To ensure prompt return, a Baxter Product Service representative must be notified before shipping any unit for repair. When calling Baxter Product Service, please be prepared to provide code number and serial number of the unit. A service request number will be issued and should accompany all communications. A brief written description of the problem should be attached to the instrument when it is returned for service.

Baxter Healthcare Corporation will not be responsible for unauthorized returns or for units damaged in shipment due to improper packing.

Baxter Healthcare Corporation
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