# QUICK REFERENCE GUIDE

Alaris® PC unit (PC Unit) and Alaris® Pump module (Pump Module)

**WARNINGS**

- To ensure proper PC Unit and Pump Module operation, the **user must be familiar with** related features, setup, programming, and IV sets and accessories.

- **This guide is not intended to be comprehensive instructions** for the setup and operation of the Alaris® System. For complete instructions, along with Warnings and Cautions, refer to the Alaris® System Directions for Use (v9).

## Programming an Infusion Using Guardrails® Suite MX Protection

**Using Guardrails® drug library:**

1. Press CHANNEL SELECT key.

2. Press Guardrails Drugs soft key.

3. Press soft key next to desired drug.

   - An optional hospital-defined therapy or clinical indication for delivery of this infusion might appear.
   - A weight-based, non-weight-based, or BSA-based option for delivery of this infusion might appear.
   - Multiple concentration listings for delivery of this infusion might appear.

4. Confirm selected drug and concentration.

If Yes was selected and facility defined a Guardrails® clinical advisory for that drug, a message appears. To indicate information has been noted and continue programming, press CONFIRM soft key.

5. Enter patient weight or BSA if required. If setup is correct, press NEXT soft key.

6. Press either RATE or DOSE soft key and enter desired value. This value may be pre-populated and edited if appropriate.

   **OR**

   Press DURATION soft key and enter desired value. This value may be pre-populated and edited if appropriate. To enter rate, press RATE VOLUME soft key and enter infusion rate.

**v9 PC Unit (Models 8000 and 8015) / Pump Module**

**CareFusion**

**Using Guardrails® drug library:** (Continued)

7. Press VTBI soft key and enter desired VTBI. VTBI may be pre-populated and value edited if appropriate.

8. Press START soft key.

**Bolus Dose:**

The bolus option appears on the Continuous Infusion page when a VTBI is entered.

1. Press BOLUS soft key.

2. Use numeric keys to enter desired bolus dose. This value may be pre-populated and edited if appropriate. If applicable, enter patient weight.

3. Press DURATION soft key and use numeric data entry keys to enter duration—this value may be pre-populated and edited if appropriate—or press Rapid Bolus soft key.

   If Rapid Bolus is selected, the bolus dose is delivered at the hospital-established fastest rate for that specific drug.

4. Press START soft key to begin bolus infusion.

5. During any bolus infusion, press CHANNEL SELECT key to see detail screen.

**Using Guardrails® IV fluids:**

1. Press CHANNEL SELECT key.

2. Press Guardrails® IV Fluid soft key.

3. Press soft key next to desired fluid.

4. Confirm selected fluid.

5. Press RATE soft key and enter rate.

6. Press VTBI soft key and enter desired VTBI.

7. Press START soft key.

**Secondary Piggyback Infusion Using Guardrails® drug library:**

Secondary infusion is not available on an Alaris® Syringe module.

1. Program primary infusion.

2. Press CHANNEL SELECT key.

3. Press SECONDARY soft key.

4. Press soft key next to desired drug.

5. Confirm selected drug and concentration.

6. Enter patient weight or BSA if required. If setup is correct, press NEXT soft key.

7. Press DURATION soft key and enter desired value. To enter rate, press RATE VOLUME soft key.

8. VTBI pre-populates with diluent volume. To edit, press VTBI soft key and enter desired VTBI.

   "Verify secondary clamp is open, then press START" prompt appears.

9. Open clamp on secondary set.

If the secondary clamp is <u>not</u> open, the fluid is delivered from the primary container.

10. Press START soft key.

When an infusion is started outside of a Guardrails® limit, a **G** icon displays. To view Guardrails® limit information, press soft key next to **G** icon.

## Programming an Infusion Without Guardrails® Suite MX Protection

**Drug Calculation:**

1. Press CHANNEL SELECT key.

2. Press Guardrails® Drugs soft key.

3. Press DRUG CALC soft key.

4. Enter amount of drug in fluid container.

5. Press drug-specific unit-of-measure soft key.

6. Enter diluent volume.

7. Press PATIENT WEIGHT soft key.

8. Press Yes or No soft key to indicate whether or not patient weight is to be used in drug calculation.

9. If applicable, enter patient weight.

10. Press TIME UNITS soft key. Press Min, Hour, or Day soft key to select appropriate time measurement.

11. Press appropriate DOSING UNITS soft key.

12. Press NEXT soft key to confirm parameters.

13. Press either RATE or DOSE soft key and enter desired value.

14. Press VTBI soft key and enter VTBI.

15. Press START soft key.

**Basic Infusion:**

1. Press CHANNEL SELECT key.

2. Press Basic Infusion soft key.

3. Press RATE soft key and enter rate.

   To enter duration press VOLUME DURATION soft key and enter duration value.

4. Press VTBI soft key and enter desired VTBI.

5. Press START soft key.

**Secondary Piggyback Infusion:**

Secondary infusion is not available on an Alaris® Syringe module.

1. Program primary infusion.

2. Press CHANNEL SELECT key.

3. Press SECONDARY soft key.

4. Press BASIC SECONDARY soft key.

5. Press RATE soft key and enter desired rate.

**Secondary Piggyback Infusion:** (Continued)

6.  Press VTBI soft key and enter desired VTBI.

    "Verify secondary clamp is open, then press START" prompt appears.

7.  Open clamp on secondary set.

    **WARNING**

    If the secondary clamp is <u>not</u> open, the fluid is delivered from the primary container.

8.  Press START soft key.

## Restarting an Infusion Following an Infusion Complete - KVO

1.  Press CHANNEL SELECT key.

2.  Press Restore soft key to restore previous VTBI or press VTBI soft key to enter a new VTBI.

3.  Press START soft key.

## Channel Labels

**Labeling a channel and then programming an infusion:**

1.  Press CHANNEL SELECT key.

2.  Press Basic Infusion soft key.

3.  Press OPTIONS key.

4.  Press Channel Labels soft key.

5.  Press soft key next to applicable channel label.

6.  Program infusion.

## Pressure Monitoring—Changing Selectable Pressure

This option is not available on an Alaris® Syringe module.

1.  Press CHANNEL SELECT key.

2.  Press OPTIONS key.

3.  Press Pressure Limit soft key.

4.  Press Selectable soft key.

5.  Press either Up or Down soft key to increase/decrease occlusion pressure threshold.

6.  Press CONFIRM soft key.

7.  Press START soft key.

## Powering Down

To power down individual channels, press and hold CHANNEL OFF key for approximately 1.5 seconds, until a beep is heard.

## System Error

If an error is detected on the PC Unit, operation continues on all channels. When appropriate for the patient, power down the system and replace the PC Unit with an operational instrument. Service by qualified personnel is required.
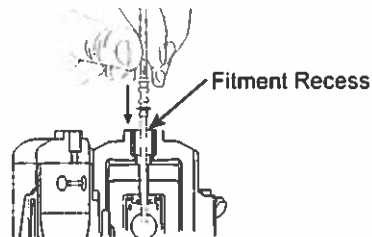
## Loading and Removing Administration Set

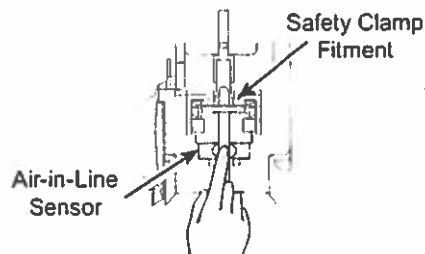### WARNINGS

- **To prevent free-flow**, close the set roller clamp when the safety clamp fitment is open.
- **Do not touch** the set tubing or upper fitment while closing the door. Failure to follow this instruction can result in infusion rate inaccuracy.

### Loading:

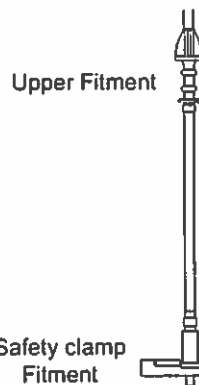1. Lower and position upper fitment into fitment recess.

Fitment Recess

2. Press Safety Clamp fitment into recess in Pump Module.

Safety Clamp Fitment

Air-in-Line Sensor

3. Firmly press tubing into Air-in-Line Sensor.

### Removing:

1. Close roller clamp.
2. Open Pump Module door and gently pull tubing below Air-in-Line Sensor forward and out to remove Safety Clamp fitment.
3. Lift upper fitment vertically from upper fitment recess.

Upper Fitment

Safety clamp Fitment

# Troubleshooting

## Alarms—Pump Module

| Alarm | Meaning | Response |
|---|---|---|
| Accumulated Air-in-Line | A large number of air bubbles smaller than current air-in-line limit has recently passed detector. | Clear air from line. To continue infusion, press **RESET** soft key and then **RESTART** key. |
| Air-in-Line | Air has been detected in administration set during an infusion. Infusion stops on affected module. | Ensure that tubing is properly installed in Air-in-Line Detector. If air is present, clear air from administration set. Press **RESTART** key, or press **CHANNEL SELECT** key and then **START** soft key. |
| Channel Disconnected | Module disconnected while in operation or have a communication problem. | To silence alarm and clear message from screen, press **CONFIRM** soft key. Reattach module if desired, ensuring it is securely "clicked" into place at Module Release Latch. If alarm is still present, replace module. |
| Check IV Set | Administration set is not properly installed. Infusion stops on affected module. | Close roller clamp, remove and reinstall administration set, close door, open roller clamp, and then press **RESTART** key. |
| Checking Line | Patient-side occlusion occurred; Auto-Restart feature monitoring downstream pressure to determine if infusion can continue. | None |
| Close Door | Door opened during an infusion. Infusion stops on affected module. | Close door. Press **RESTART** key, or press **CHANNEL SELECT** key and then **START** soft key. |

## Alarms—Pump Module (Continued)

| Alarm | Meaning | Response |
|---|---|---|
| Occluded - Fluid Side/Empty Container | Indicates either upstream occlusion or empty container. Infusion stops on affected module. | Clear occlusion on fluid side of instrument. If necessary, refill drip chamber. Press **RESTART** key, or press **CHANNEL SELECT** key and then **START** soft key. |
| Occluded - Patient Side | Increased back pressure sensed while infusing in pump delivery mode. Infusion stops on affected module. | Clear occlusion. Press **RESTART** key, or press **CHANNEL SELECT** key and then **START** soft key. |
| Partial Occlusion - Patient Side | Partial occlusion of patient side of IV line detected by Auto-Restart feature. | Clear occlusion. Press **RESTART** key, or press **CHANNEL SELECT** key and then **START** soft key. |
| Pump Chamber Blocked | Tubing blocked inside Pump Module (in pump chamber). | 1. Close roller clamp and open door. <br> 2. Remove tubing. <br> 3. Massage tubing from top to bottom to restore flow. <br> 4. Reload set and close door. <br> 5. Press **NEXT** soft key. <br> 6. Press **CONFIRM** soft key. <br> 7. Open roller clamp and press **RESTART** key. <br> 8. Verify flow in drip chamber after restarting infusion. <br> 9. Change set if not able to establish flow. |

## Troubleshooting (Continued)

### Alarms—Pump Module (Continued)

| Alarm | Meaning | Response |
|---|---|---|
| Restart Channel | Door opened and closed during an infusion. Infusion stops on affected module.<br><br>Module paused for 2 minutes. | Close door. Press **RESTART** key, or press **CHANNEL SELECT** key and then **START** soft key.<br><br>Press **RESTART** key, or press **CHANNEL SELECT** key and then **START** soft key. |
| Safety Clamp Open - Close Door | Safety clamp device is in open position while door is open. | Close roller clamp on administration set or close door. |

### Errors—PC Unit

| Error | Meaning | Response |
|---|---|---|
| Hardware Detected Error | Error detected on PC Unit. Operation stops on all modules. | Replace PC Unit. |
| System Error | Error detected on PC Unit. Operation continues on all attached modules. | To continue temporary operation, press **SILENCE** key. Replace PC Unit. |

### Errors—Pump Module

| Error | Meaning | Response |
|---|---|---|
| Channel Error | Error detected. Operation stops on affected module. | To silence alarm and continue operation of unaffected module(s), press **CONFIRM** soft key. Replace module, as needed. |

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