

## QUICK REFERENCE GUIDE

### WARNINGS:

- To ensure proper operation of the Alaris™ System, you must be familiar with related features, disposables, administration sets, set-up and programming.
- 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 Alaris™ System User Manual (v9).

### Syringe Loading and Set-Up

#### Loading:

1. Open syringe barrel clamp (clear piece) until it clears syringe chamber.
2. Raise drive head (gray) to fully extended position.
3. Insert syringe barrel flange between barrel flange grippers.
4. Lock syringe in place by closing barrel clamp.
5. Twist gripper control clockwise, lower drive head, lock plunger in place with plunger grippers.

#### Removal:

1. Close tubing clamp.
2. Unlock door with key, open plunger grippers and syringe barrel clamp. (Silence safety alarm).
3. Remove syringe.

*Note: At the start of an infusion program, the system prompts to select and confirm syringe type and size. Ensure displayed syringe manufacturer and size correctly identifies the installed approved syringe.*

### WARNING:

- Do not prime while attached to patient.

#### Priming:

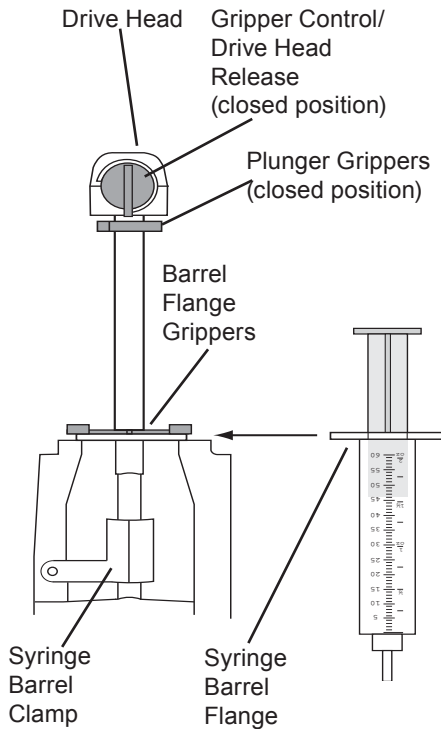
1. Select administration set and attach set to syringe.
2. If priming manually, express air from administration tubing set.
3. If priming using Alaris™ PCA Module (PCA Module), this feature is available when viewing Infusion Mode screen during programming of PCA Module. At this screen Press **OPTIONS**, then press **PRIME SET WITH SYRINGE**.
4. Once tubing set is primed, close slide clamp.

#### Detaching Module:

Use key to unlock door. Inside locate lever and depress. At the same time holding the module and moving the bottom of the module sideways and away from Alaris™ PC Point-of-Care Unit (PC Unit).

### WARNING:

- To prevent uncontrolled flow, close set tubing clamp before loading or unloading syringe.



### Programming an Infusion using Guardrails™ Suite MX Protection

#### Initial Set-Up:

1. Load syringe with administration set attached.
2. Press **SYSTEM ON** key.
3. Select **YES** or **NO** to “New Patient”.
4. Select appropriate profile.
5. Press **CHANNEL SELECT** key.
6. Set key to Program position.
7. Press **CONFIRM** time setting.
8. Choose correct syringe type and size. (if syringe selection is not displayed press **ALL SYRINGES**)

9. Choose correct medication and concentration.
10. Respond to appropriate clinical advisory.
11. Review monitoring alarm limits (if applicable).
12. At “Infusion Mode” screen: To Prime, press **OPTIONS** key.
13. Press **PRIME SET WITH SYRINGE**.
14. Press and hold **PRIME** key to prime tubing.

#### **WARNING:**

- Do not prime while attached to patient.
15. Press **EXIT** when prime is complete.
  16. Choose desired Infusion Mode and follow on-screen prompts.
  17. Close and lock door.
  18. Attach administration set tubing set to patient.
  19. Review settings and press **START**.

#### Change Syringe:

1. Press **PAUSE**.
2. Close tubing clamp.
3. Use key and unlock door.
4. Remove old syringe.
5. Press **SILENCE**.
6. Attach new syringe to tubing.
7. Load new syringe.
8. Set key to Program position, close door.
9. Press **CHANNEL SELECT**.

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10. Choose correct syringe type and size. (if syringe selection is not displayed press **ALL SYRINGES**).
11. Press **CONFIRM**.
12. Press **RESTORE** if same drug and concentration.
13. Verify drug and concentration.
14. Verify current settings.
15. Lock door and open tubing clamp.
16. Review settings and press **START**.

#### Change Program/Mode:

1. Press **CHANNEL SELECT** key.
2. Press **PROGRAM**.
3. Set key to "Program" position or enter authorization code (if enabled).
4. Press **CHANGE MODE** soft key.
5. Choose desired infusion mode and follow onscreen prompts.

#### Reviewing or Changing PCA Pause Alarm Limits:

1. Press **CHANNEL SELECT** key.
2. Press **OPTIONS** key.
3. Select **PCA Pause Limits**.
4. Review change limits per hospital protocol.
5. Press **CONFIRM** and **START**.

**Note:** This function requires use of monitoring module(s).

#### Disabling PCA Pause Alarm:

1. Press **CHANNEL SELECT** key.
2. Press **OPTIONS** key.
3. Select **PCA Pause Limits**.

4. Press **Disable SpO2/Disable EtCO2**.

5. Press **CONFIRM** and **START**.

#### Beginning of Shift/Summary Review:

1. Press **CHANNEL SELECT** key.
2. Verify syringe type/size, drug/ concentration and settings.
3. Press **START** key.

#### Patient History/End of Shift/24hr History

1. Press **CHANNEL SELECT** key.
2. Press **OPTIONS**.
3. Press **PATIENT HISTORY**.
4. Review drug totals.
5. Press **ZOOM** key (time interval) as appropriate.
6. To clear patient history press **CLEAR HISTORY**.
7. Press **YES** or **NO**.
8. To view 24 hour totals: Press **24 h Totals**.
9. Press **EXIT**.
10. Press **START**.

### PCA/Monitoring Trend Data

**Note:** This function requires use of monitoring module(s)

1. Press **CHANNEL SELECT** on the Monitoring Module.
2. Press **OPTIONS**.
3. Press **PCA/Monitoring Trend data**.
4. To exit: Press **MAIN**.
5. Press **Main Screen**.

### Give a Bolus Dose

1. Press **CHANNEL SELECT**.
2. Press **Bolus Dose**.
3. Set key to Program position or enter authorization code (if enabled).
4. Enter bolus dose amount.
5. Lock door.
6. Press **CONFIRM**.
7. Review settings and press **START**.

### Stopping Bolus, Loading or PCA Dose

1. Press **CHANNEL SELECT** key.
2. Press **Stop Bolus/Loading or PCA**.
3. Press **YES** or **NO**.

**Note:** Programmed settings will resume.

### Change Dose Request Cord Setting

1. Press **CHANNEL SELECT** key.
2. Press **OPTIONS**.
3. Press **Dose Request Set-up**.

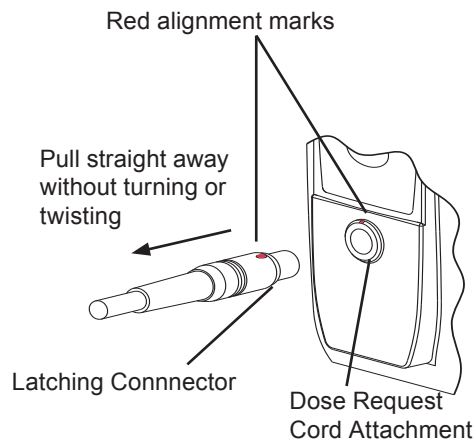
4. Choose desired Dose Cord Profile. (1=light flashes, 2=light on, 3=light off)
5. Press **CONFIRM**.
6. Press **START**.

### Attach Dose Request Cord

1. Align red mark on latching connector with red mark on Dose Request Cord attachment.
2. Insert latching connector on the cord into Dose Request Cord attachment on PCA Module.

### Detach Dose Request Cord

Hold body of latching connector on the cord and pull straight away from Dose Request Cord attachment on the PCA Module.



### Alarms and Troubleshooting: Alarms

Alarm	Meaning	Response
Check Syringe	<ul style="list-style-type: none"> <li>Plunger grippers opened during infusion and then closed. Infusion stops on affected channel.</li> <li>Syringe barrel clamp opened during infusion and then closed.</li> <li>Syringe plunger not captured while in idle mode. System alarms immediately to indicate potential siphoning condition. If security door is closed and syringe plunger is not captured, the system will immediately alarm.</li> </ul>	<p>Securely lock plunger grippers, press <b>CHANNEL SELECT</b> key, and reselect syringe.</p> <p>Securely lock syringe barrel clamp and press <b>RESTART</b> key.</p> <p>Check for potential siphoning. Ensure administration set clamp (roller/slide) is in closed position. Securely lock plunger grippers over syringe plunger.</p>
PCA Pause Alarm	PCA infusion has paused due to a decline in respiratory status.	Assess patient status per hospital policy. Press <b>CONFIRM</b> once patient status and monitoring values have been addressed. Press <b>RESTART</b> key per hospital policy. To view trigger of PCA Pause Alarm, Press <b>CHANNEL SELECT</b> , Press, <b>OPTIONS</b> , Press <b>DRUG EVENT HISTORY</b> , Press Up/Down key to view text for monitoring value causing PCA Module to pause. Press <b>EXIT</b> and then <b>START</b> ..
Drive Not Engaged	Drive system disengaged during operation.	Open and close plunger grippers. Ensure syringe is properly installed.

**Alarms and Troubleshooting: Alarms**

Alarm	Meaning	Response
Channel Error	Error detected on infusing channel. Infusion stops on affected channel.	To silence alarm and continue operation of unaffected channels, press <b>CONFIRM</b> soft key. Replace channel with an operational instrument, as required. Service by qualified personnel is required.
Syringe Driver Head Error	Noninfusing channel, with plunger grippers open, senses excessive pressure being applied downward on Drive Head. <b>OCCLUSSION</b> scrolls in Channel Message Display..	To silence alarm and continue normal operation, press <b>CONFIRM</b> soft key.

## Messages

Messages	Meaning	Response
Max Limit Reached	Programmed Max Limit has been reached over time period specified. Infusion paused until time limit has expired.	To silence alarm, press <b>SILENCE</b> key. To change Max Limit, press <b>CHANNEL SELECT</b> , press <b>SETUP</b> soft key and unlock door or enter Authorization Code applicable for current Security Access Level.
PCA Not In Secure Location	PCA Module is not in preferred location to allow locking to the PC Unit. Device is not in a tamper evident position.	Detach PCA Module from current position and reattach to immediate right of the PC Unit.
Syringe Not Recognized	Installed syringe of unknown type and size.	Select and confirm correct syringe type and size, and then press <b>CONFIRM</b> ; or use a syringe type and size that system can automatically and correctly identify. Ensure compatible syringe is loaded. For a list of compatible syringes, refer to Compatible Sets section of this Directions for Use.
Near End of Infusion (NEOI)	Syringe almost empty. This is a timed event that can be set. To set or change this option, see the Alaris System User Guide v9 "General Information," "Configurable Settings."	This is a timed event that can be set. To set or change this option, see the Alaris System User Guide v9 "General Information," "Configurable Settings." To silence alarm, press <b>SILENCE</b> key. Syringe module remains functional and continues infusion.