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).

Programming
Setting Alarm Limits
1. Press CHANNEL SELECT key.
2. Press Limits.
3. Select limit to be changed.
4. Enter a numeric value using keypad or up/down arrow keys.
5. Press CONFIRM.

Trend Data
1. Select TREND.
2. Press PAGE UP and PAGE DOWN to navigate through trend data pages. To move cursor bar press up or down arrow keys.
3. Press ZOOM to change time period.
4. To exit press EtCO₂ Main.

PCA/EtCO₂ Trend Data
(Available only with an Alaris™ PCA Module)
1. Press OPTIONS.
2. Select PCA/EtCO₂ Trend Data. Navigate as described above in section titled Trend Data.

Change Waveform Height
1. Press OPTIONS.
2. Select WAVEFORM HEIGHT.
3. Select 60mmHg or 99mmHg.

Change Waveform Time Scale
1. Press OPTIONS.
2. Select WAVEFORM TIME SCALE.
3. Select 5 or 10 seconds (for lower respiratory rates select 10 seconds).

Pre-Silencing Alarm
Press SILENCE to pre-silence monitoring alarms for two minutes.

Note: Infusion alarms will not be silenced.
## Alarms

<table>
<thead>
<tr>
<th>High Priority Alarm</th>
<th>Meaning</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Breath Detected</td>
<td>No breath has been detected for a specified period of time.</td>
<td>Assess patient condition. Check Microstream® Disposable. Confirm correct disposable is chosen. Confirm correct disposable placement.</td>
</tr>
<tr>
<td>High EtCO₂</td>
<td>EtCO₂ value is above the specified limit.</td>
<td>Assess patient condition. Confirm correct alarm limit values are selected.</td>
</tr>
<tr>
<td>Low EtCO₂</td>
<td>EtCO₂ value is below the specified limit.</td>
<td>Assess patient condition. Confirm correct alarm limit values are selected.</td>
</tr>
<tr>
<td>High RR</td>
<td>Respiratory Rate is above the specified limit.</td>
<td>Assess patient condition. Confirm correct alarm limit values are selected.</td>
</tr>
<tr>
<td>Low RR</td>
<td>Respiratory Rate is below the specified limit.</td>
<td>Assess patient condition. Confirm correct alarm limit values are selected.</td>
</tr>
<tr>
<td>High FiCO₂</td>
<td>FiCO₂ value is above the specified limit.</td>
<td>Assess patient condition. Confirm correct alarm limit values are selected.</td>
</tr>
<tr>
<td>Disconnect</td>
<td>Purging operation failed.</td>
<td>Check Microstream® Disposable. Obtain a new Microstream® Disposable. Attach Microstream® Disposable to patient and module.</td>
</tr>
<tr>
<td>Occluded Disposable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disposable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Messages

<table>
<thead>
<tr>
<th>Message</th>
<th>Meaning</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autozero (in progress)</td>
<td>EtCO₂ Module performs a baseline by sampling CO₂ present in ambient air.</td>
<td>Wait for the module to complete its auto-zeroing function. After the auto-zero cycle is complete, the module will begin measurement again. No user intervention is required.</td>
</tr>
<tr>
<td>Clearing Disposable</td>
<td>Microstream® Disposable has become blocked.</td>
<td>Check Microstream® Disposable. Wait for purging to complete.</td>
</tr>
</tbody>
</table>
EtCO₂ Waveform Examples

Normal Waveform Example = Normal Ventilation; 35-45 mmHg
A- B: Baseline period of no CO₂, end of inhalation
B- C: Rapid rise in CO₂
C- D: Alveolar plateau
D: End of expiration, end tidal CO₂ (EtCO₂)
D- E: Inhalation

Abnormal Waveform Examples - Not necessarily associated with alarms

Hypoventilation
Possible Causes:
• Overmedication

Hyperventilation
Possible Causes:
• Respiratory distress
EtCO₂ Waveform Examples (Continued)
Abnormal Waveform Examples - Not necessarily associated with alarms

Partial Airway Obstruction
Possible Causes:
• Relaxation of upper airway
• Head position

Hypoventilation with Shallow Breathing
Possible Causes:
• Medication effect
• Low tidal volume

No Breath Detected
Possible Causes:
• Apnea
• Very shallow breathing
• Overmedication
• Displaced cannula