

## 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 **EtCO<sub>2</sub> Main**.

#### PCA/EtCO<sub>2</sub> Trend Data

(Available only with an Alaris™

#### PCA Module)

1. Press **OPTIONS**.

2. Select **PCA/EtCO<sub>2</sub> 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

High Priority Alarm	Meaning	Response
No Breath Detected	No breath has been detected for a specified period of time.	Assess patient condition. Check Microstream® Disposable. Confirm correct disposable is chosen. Confirm correct disposable placement.
High EtCO <sub>2</sub>	EtCO <sub>2</sub> value is above the specified limit.	Assess patient condition. Confirm correct alarm limit values are selected.
Low EtCO <sub>2</sub>	EtCO <sub>2</sub> value is below the specified limit.	Assess patient condition. Confirm correct alarm limit values are selected.
High RR	Respiratory Rate is above the specified limit.	Assess patient condition. Confirm correct alarm limit values are selected.
Low RR	Respiratory Rate is below the specified limit.	Assess patient condition. Confirm correct alarm limit values are selected.
High FiCO <sub>2</sub>	FiCO <sub>2</sub> value is above the specified limit.	Assess patient condition. Confirm correct alarm limit values are selected.
Disconnect Occluded Disposable	Purging operation failed.	Check Microstream® Disposable. Obtain a new Microstream® Disposable. Attach Microstream® Disposable to patient and module.

## Messages

Message	Meaning	Response
Autozero (in progress)	EtCO <sub>2</sub> Module performs a baseline by sampling CO <sub>2</sub> present in ambient air.	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.
Clearing Disposable	Microstream® Disposable has become blocked.	Check Microstream® Disposable. Wait for purging to complete.

### EtCO<sub>2</sub> Waveform Examples

**Normal Waveform Example = Normal Ventilation; 35-45 mmHg**

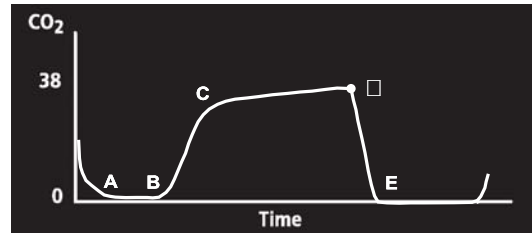
**A- B:** Baseline period of no CO<sub>2</sub>, end of inhalation

**B- C:** Rapid rise in CO<sub>2</sub>

**C- D:** Alveolar plateau

**D:** End of expiration, end tidal CO<sub>2</sub> (EtCO<sub>2</sub>)

**D- E:** Inhalation

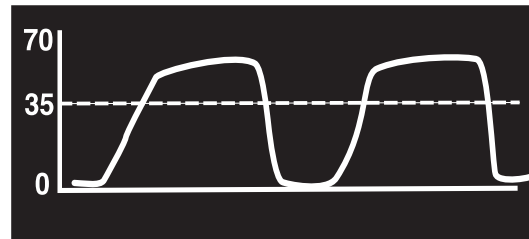


### Abnormal Waveform Examples - Not necessarily associated with alarms

#### Hypoventilation

**Possible Causes:**

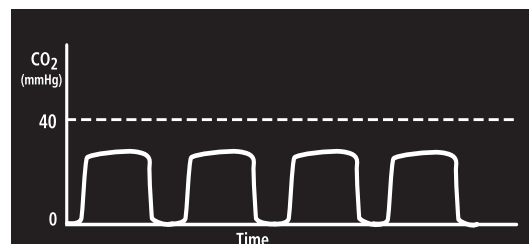
- Overmedication



#### Hyperventilation

**Possible Causes:**

- Respiratory distress



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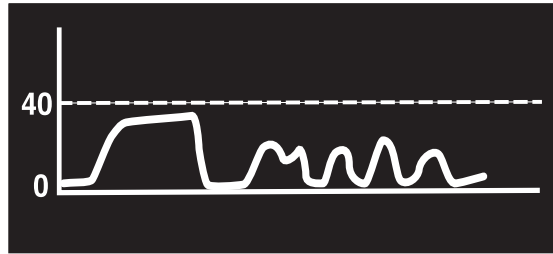
## EtCO<sub>2</sub> Waveform Examples (Continued)

### Abnormal Waveform Examples - Not necessarily associated with alarms

#### Partial Airway Obstruction

##### Possible Causes:

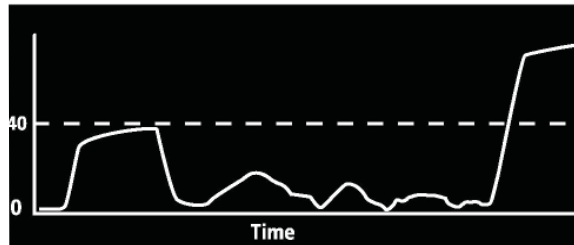
- Relaxation of upper airway
- Head position



#### Hypoventilation with Shallow Breathing

##### Possible Causes:

- Medication effect
- Low tidal volume



#### No Breath Detected

##### Possible Causes:

- Apnea
- Very shallow breathing
- Overmedication
- Displaced cannula

