

## CATHETER INSERTION

1. Power on Q<sub>2</sub> CCO/SvO<sub>2</sub> Computer – Flip switch at back of computer
2. Connect to Q<sub>2</sub> computer:
  - *Thermal Coil Cable*
  - *Cardiac Output Cable*
  - *Op-Mod Cable*
3. Connect Op-Mod to catheter (catheter is still in package, tip in reference block)
4. Press **SO<sub>2</sub> CAL** key
5. Perform **PRE-INSERTION CALIBRATION**
6. Perform catheter insertion
7. Perform **LIGHT INTENSITY CALIBRATION**
8. Connect CO Cable to OptiQ™ Catheter Thermistor Connector (white). Confirm that Thermistor is working properly
9. Connect Thermal Coil Cable to OptiQ™ Catheter Thermal Coil Connection (blue)
10. Main Screen will display
11. Change or Confirm Patient Parameters
12. Start Continuous Cardiac Output (press **CCO Start/Stop** key)

## CALIBRATIONS

### Pre-insertion – done with catheter in package, tip in reference block

1. Press **SO<sub>2</sub> CAL** key
2. Press **P** soft function key for **PRE-INSERTION CALIBRATION**
3. Press **Y** soft function key

## CALIBRATIONS - (CONT.)

4. Wait for **CAL OK**, remove catheter from package and insert according to protocol

### Light Intensity – done immediately post-insertion

1. Assure that catheter is in proper position, then press **SO<sub>2</sub> CAL** key
2. Press **L** soft function key for Light Intensity Calibration
3. Confirm that light intensity tracing covers a minimum of 3 dots in middle and upper part of light intensity box
4. Press **Y** soft function key to store

### In Vivo – Prior to IN VIVO Cal, confirm adequate light intensity and stable

#### SvO<sub>2</sub> readings

1. Press **SO<sub>2</sub> CAL** key
2. Press **I** soft function key for **IN VIVO CALIBRATION**
3. Press **Y** soft function key
4. Observe *DRAW NOW* message
5. Draw waste and sample slowly from distal port
6. Send to Lab according to protocol
7. Computer will save SO<sub>2</sub> value at time sample was drawn in left upper corner of screen while continuing to monitor real time SO<sub>2</sub>
8. Compare Lab results with stored SvO<sub>2</sub>
9. If values agree  $\pm 4$ , press **Y** function key: if difference  $> 4$ , enter Lab value using  $\uparrow$  or  $\downarrow$  soft function keys
10. Press **Y** soft function key to complete

## CCO/CCI – START/STOP/SWITCH

### Start/Stop CCO

1. Press **CCO Start/Stop** key
2. When starting CCO, computer asks if patient parameters are correct (ht. and wt.)
3. Change or confirm patient parameters
4. System will monitor SvO<sub>2</sub> and CCO
5. **CCO Start/Stop** key toggles between on and off

### Switch from CCO to CCI

1. Press **SYSTEM CONFIG** key
2. Press **I** soft function key
3. System will toggle between CCO and CCI and display at top right of screen

## HEIGHT AND WEIGHT ENTRY

### Prior to Patient Attachment or During Monitoring

1. Press **SYSTEM CONFIG** key
2. Press **M** soft function key for next screen
3. Press **P** soft function key for patient parameters
4. Press  $\rightarrow$  soft function key for next parameter
5. Press  $\uparrow$  soft function key to scroll up to desired value
6. Press  $\downarrow$  soft function key to scroll down to desired value
7. Press **S** soft function key to save

## DISCONNECT/CONNECT/TRANSPORT

### Disconnect – Transport

- Opt Mod – **MUST ALWAYS BE ATTACHED** during transport. Detach Op Mod only at computer
- CO cable – may be detached
- Thermal Coil cable – may be detached

### Connect

1. Connect OP Mod cable to computer
2. SvO<sub>2</sub> monitoring will commence
3. Connect CO and Thermal Coil cables to catheter
4. Computer will ask if patient parameters are correct – confirm or change
5. Press **CO START** key
6. CCO monitoring will commence

## CALCULATIONS

### Hemodynamic Calculations

1. Press **CAL VALUE** key
2. Press → soft function key for next parameter
3. Press ↑ soft function key to scroll up to desired value
4. Press ↓ soft function key to scroll down to desired value
5. Press **M** soft function key for more calc values
6. Follow 2-4 for desired values
7. Press **M** soft function key for 1st screen
8. Press **CAL VALUE** to exit

Note: Patient height and weight may also be entered or changed in this screen

### MEMORY – SAVE/RECALL

1. Press **A LOGO**
2. Press **O** soft function key for **Op Mod Storage**
3. Press **S** soft function key to **Save** data and back to menu
4. Press **R** soft function key to **Recall** last OP Mod Time and data; back to menu
5. Press **A LOGO** to exit

## ALARMS

### Alarms Silence

1. Press **SILENCE ALARM** key
2. Press **L** soft function key for **Light Intensity** alarm
3. Turn alarms off or on
4. The 'bow-tie' with line is "off"
5. Press **C** soft function key for **Cardiac Output** alarm
6. Press **S** soft function key for **SO<sub>2</sub>** Alarm

### Alarm Limits

1. Press **ALARM LIMIT** key
2. Press **CO** soft function key for **Cardiac Output**
3. Press **SO** soft function key for **SO<sub>2</sub>**
4. Press ↑↑ soft function key to raise upper alarm limit
5. Press ↓↓ soft function key to lower upper alarm limit
6. Press ↑ soft function key to raise lower alarm limit
7. Press ↓ soft function key to decrease lower alarm limit
8. Press **ALARM LIMIT** key to exit

## SIGNAL PROCESSING MODE

### SELECTION

- Normal – maximum artifact rejection. Response time with minimal noise in 3-5 min.
  - Fast Filtered – significant artifact rejection. Response time in 3-5 min.
  - Fast - Moderate artifact rejection. Response time in 5 minutes, regardless of QSI.
  - Urgent - Minimal artifact rejection. Response time in 90 sec, regardless of QSI.
1. Press **System Config** key
  2. Press **A** soft function key
  3. Select mode (one of 4 – system defaults to Normal mode for maximal artifact rejection)
  4. Press **System Config** key to exit

### QSI – QUALITY SIGNAL INDICATOR

- Located below CCO value on screen
- Indicator of response time
- Allows assessment of currency and quality of displayed data
- 5 bars – minimal thermal noise
- As the bars decrease, there is thermal noise present which may slow the response time



# Q<sub>2</sub> SvO<sub>2</sub>/CCO COMPUTER OPERATION INSTRUCTIONS (Condensed)