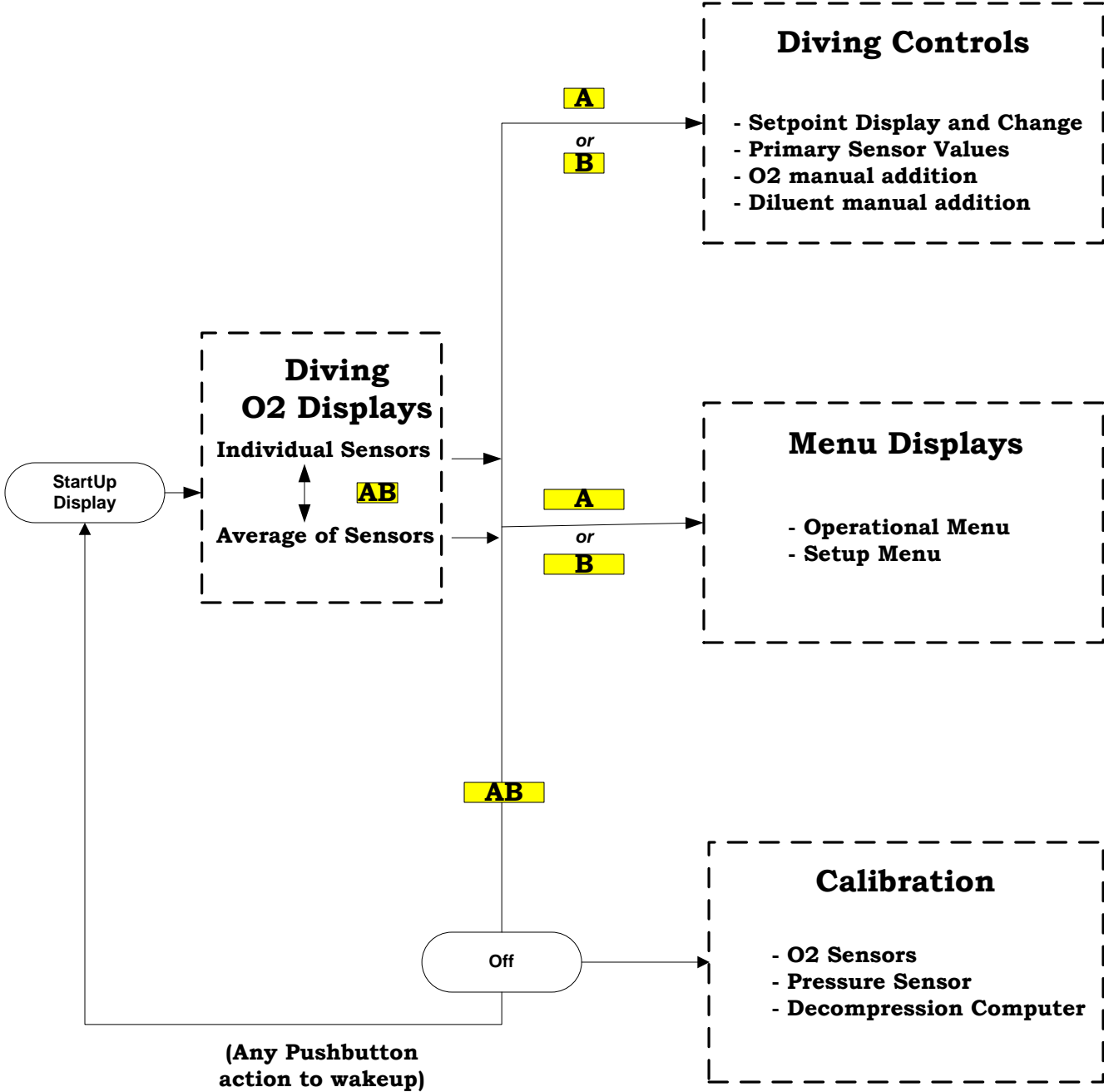


UDC Overview

Push Button Actions
(Used to control what you are doing and seeing)

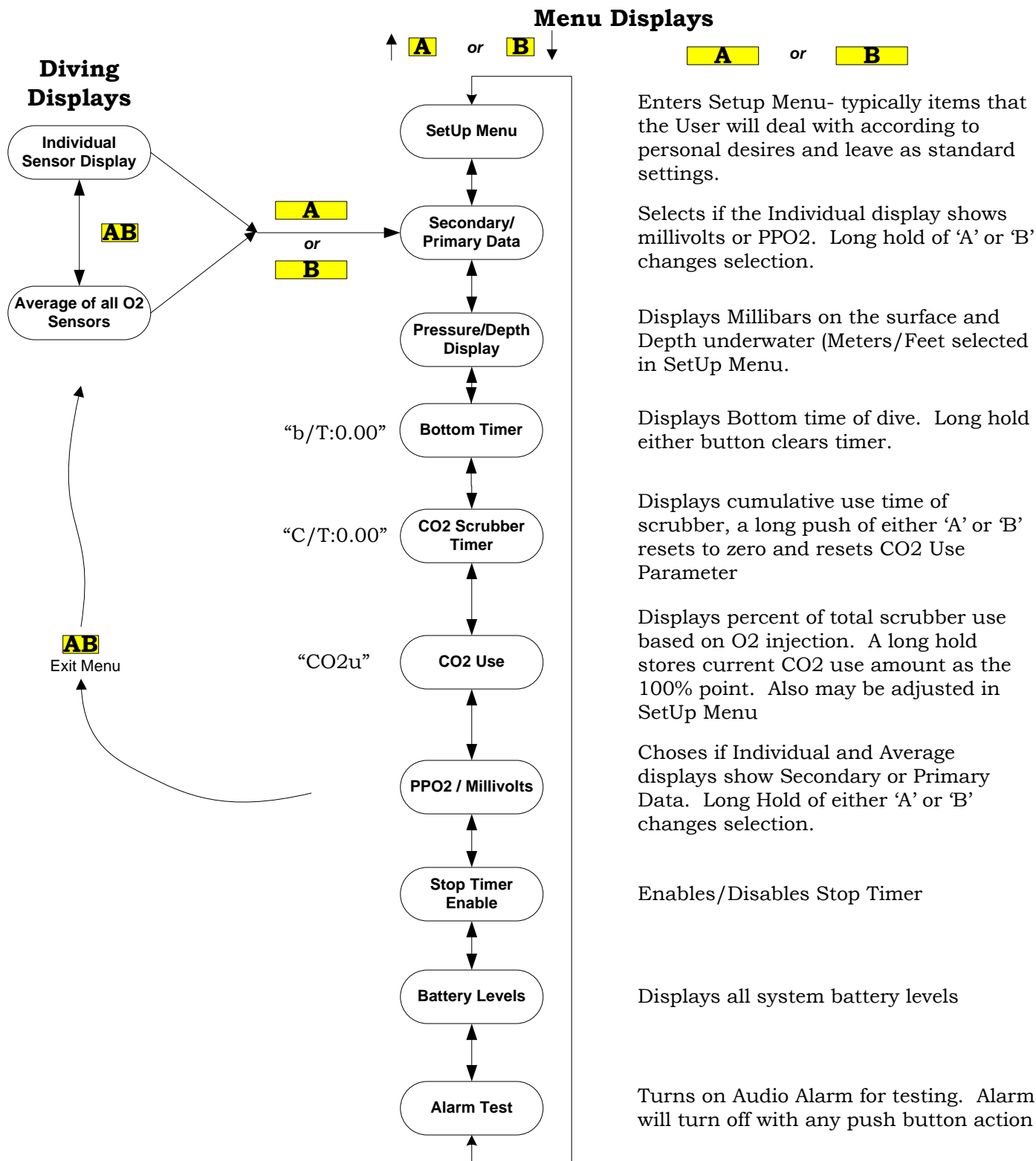
- | | | | |
|-----------|-----------------|-----------|----------------|
| A | Short Push 'A' | A | Long Hold 'A' |
| B | Short Push 'B' | B | Long Hold 'B' |
| AB | Short Push 'AB' | AB | Long Hold 'AB' |



UDC Operations Menu

Push Button Actions
(Used to control what you are doing and seeing)

Short Push
 Long Hold
 AB Short Push both buttons



UDC Calibration Procedure

1: Open Loop to Air

2: Set ILD to Calibration Mode (if CCU attached)

- Start with the system turned on.
- Long Hold (Main Button) until all LEDs cycle off and only the Alert remains
- Short Push once the LEDs start cycling on.
- The ILD will indicate Calibration mode by a rotating LED display

3: Set UDC to Calibration Mode

- Start with the system turned on.
- Long Hold both buttons held down until all LEDs cycle off and only the Alert remains
- Short Push once the LEDs start cycling on and the LCD shows a count down sequence
- The UDC will indicate Calibration mode by a rotating LED display and the LCD will show "O2 Sensors" as the first selection in the calibration list.
- Long Push (either Button) to select O2 Calibration mode
 - This puts the UDC into the initial stage of O2 Calibration (validates the pressure sensor)

UDC Calibration Mode

4: Pressure Sensor Validation

- Display shows current atmospheric pressure in millibars (sea level should be around 1014mb)
- use short pushes to adjust the pressure if necessary
- Long Hold (either button) to accept the current reading

5: Air Calibration

- Displays the sensors in millivolts
- Validate acceptable outputs (typically 8mv to 12mv)
- Short Push (either button) to check the CCU sensor millivolt levels
- Long Push to Accept outputs in air.

6: Select Calibration Gas

- Selection of the final calibration gas level (choices are 100%, 98%, 96%, 94%, 92%, 90%, 21%)
- Short Pushes (either button) to select desired final calibration gas
- Long Push to Accept displayed Calibration Gas Level

7: Flush loop with calibration gas

7: High Calibration

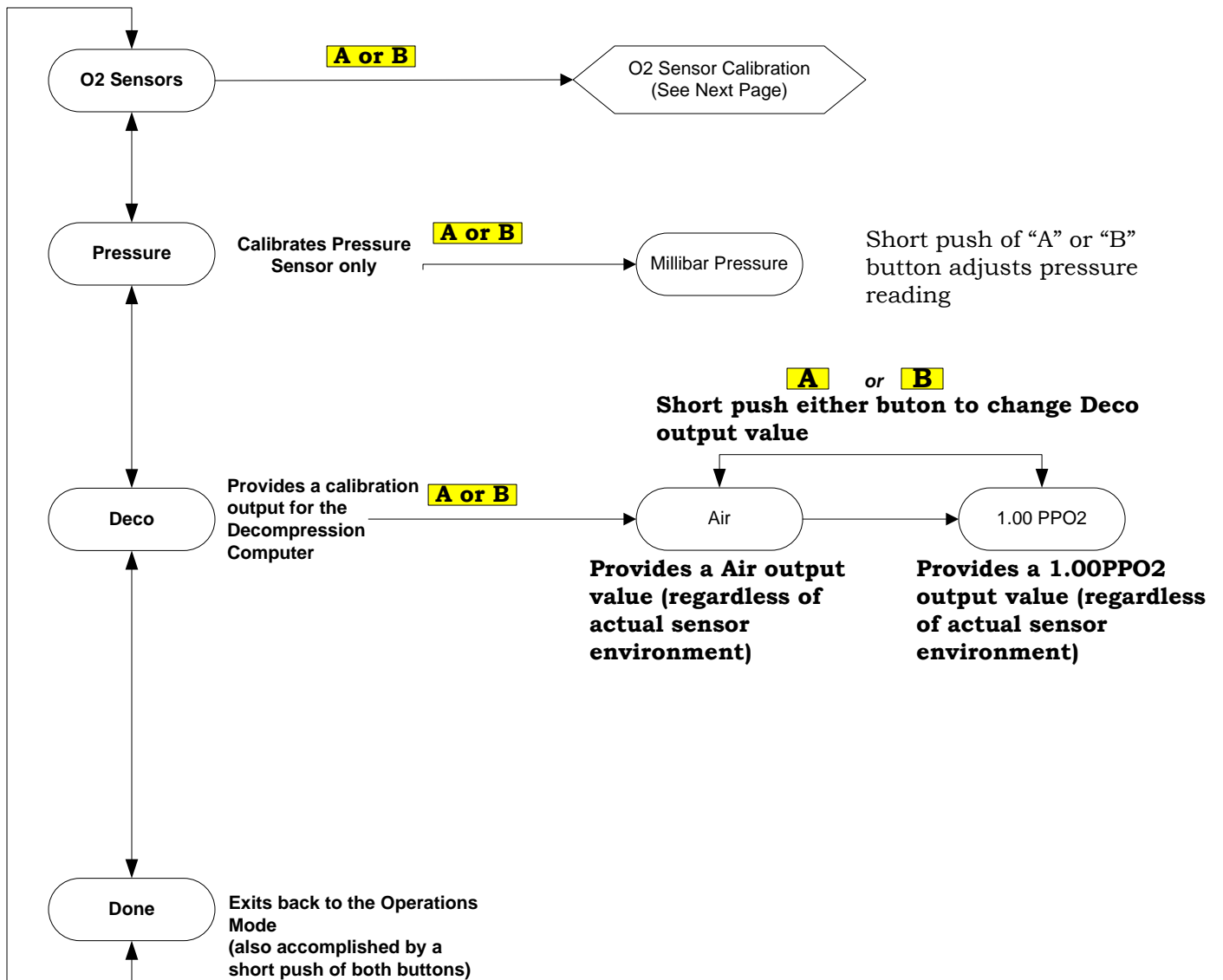
- NOTE: IF Air Calibration was selected, this step will be skipped.
- The UDC will display the detected FO2 of the sensors, this should reflect the FO2 of the calibration gas depending on how good the sensors are. The worse the sensor is, the greater the difference in the displayed FO2 from the actual calibration gas.
- Short Push (Either PushButton) will display the CCU sensors
- Long Push to Accept the Sensor Calibration
- Short Push Both Buttons to exit this mode if the sensors are not acceptable

Calibration Complete

- The UDC will briefly display "CCCC" (or "Cerr" if a problem was detected)
- The CCU sensor levels are then displayed to allow validation of that calibration
- Short Push (either button) will exit the CCU sensor display and resume normal operation, the user should verify that the sensors are displaying the correct calibration level
- The ILD will either be displaying a slow blink of all LEDs for successful calibration or a rapid flash of all LEDs with an error code if any problems were detected. A short push will clear that state and resume normal operation.

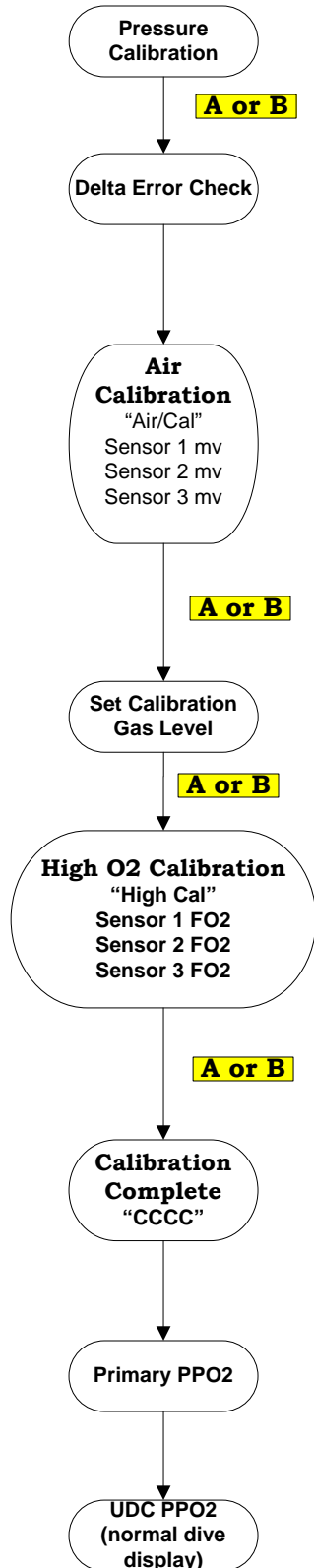
UDC Calibration Menu

- A** Short Push 'A'
- B** Short Push 'B'
- AB** Short Push 'AB'
- A** Long Hold 'A'
- B** Long Hold 'B'
- A or B** Long Hold 'A' or 'B'
- A-B** Long Hold 'AB'



**Main Calibration
Menu**

O2 Sensor Calibration Displays



Pressure Calibration: Displays the pressure in millibars and allows short pushes of “A” or “B” to adjust the value. A long hold of either button sets the value and moves to the next step.

Only displayed if an error condition is detected. This validates that the UDC and CCU generally agree on the sensor values being measured

Air Calibration: Display cycles through all sensors displaying millivolt values. A short push displays the CCU millivolt readings for validation

Long Push either Push Button to accept air calibration values

Calibration Gas Level is set by using short pushes to change the value (from 100%, 98%, 96%, 94%, 92%, 90%, and 21%). A long push either button selects that value as the gas used for the High Calibration.

High Calibration: Cycles over all sensors displaying the current FO2 based on the air calibration values. If the sensors are linear, the FO2 values displayed will be close to the FO2 of the calibration gas. As sensors decay, the displayed FO2 will be less than the calibration gas.

A long push of either button completes the calibration process

After displaying “CCCC” for successful calibration, the UDC displays the PPO2 values for the Primary (CCU) side of the system for user validation. A short push of either button starts the display of the UDC PPO2 values.