

## PSS500 TOUCHPAD OVERVIEW

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### Touchpad Controls

The PSS500 control board communicates with the touchpad using both direct control signals and a serial IIC interface (also called I<sup>2</sup>C or I2C). The direct control signals come from the ON & OFF buttons on the touchpad. These signals directly activate or deactivate the relay, K1, which, in turn, activates or deactivates the power control module on the Opto22 board that supplies power to all the valves.

The microcontroller monitors the state of this relay to determine if the sterilizer is ON or OFF. In the OFF state, the microprocessor shuts off all outputs and turns off the touchpad. However, the microprocessor is still running and monitoring the touchpad.

Occasionally, issues with the touchpad cable will cause the ON and OFF buttons to function, but the display will not and vice versa.

At power-up, the microcontroller must initialize the LCD on the touchpad using the I2C interface – power up is the only time this happens. If initialization does not occur for some reason such as the cable not being connected, once the cable is connected the light will illuminate on the LCD, but it will not display messages. In some cases, if initialization does not occur, the LCD may display its own message of “Uninit.” In either case, the solution is to ensure that the touchpad is properly connected and then cycle power on the control box.

### Double Door Units

On double door units, both touchpads are connected in parallel and each touchpad is addressed through the I2C protocol. A jumper on the touchpad is used to set an address bit to distinguish between side A and side B. When the jumper is ON, the touchpad responds as side A; OFF for side B.



## PSS500 TOUCHPAD OVERVIEW (continued)

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### Causes for No Touchpad Display

Causes for no touchpad display in operational mode:

- 1) If pressure calibration is off such that the unit believes the pressure is >40 PSIG or < 40 InHg the display will not come on
- 2) The processor is not running
- 3) The touchpad ON button has not been pressed or is not working
- 4) A bad cable connection

### Corrective Actions

If there is nothing displayed on the touchpad when power is applied, the first thing to try is to switch the unit into CAL mode. There are no conditions necessary in CAL mode and the “Hit any button” should be displayed.

In CAL mode the display will turn on even if the ON button has not been pressed. However, turning the unit ON is necessary in order to turn on the Master Power relay that provides power to the output relays.

### Return Material Authorization (RMA)

If troubleshooting efforts fail to return the keypad to its design state, then contact PRIMUS for a RMA number and a replacement touchpad. Please ensure the potentially defective touchpad is returned expeditiously to PRIMUS so the part can be analyzed for the root cause failure.



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