Door Sensor Troubleshooting

PROBLEM : LCD Screen displays "DOOR OPEN" and all doors on the Chamber are closed.

The most common cause for this kind of problem is that one or more of the Magnets located in the door gasket is out of alignment with the Door Sensor.

Checking the Alignment. The fastest way to check for this problem is by placing one magnet large enough to cover the whole sensor over each of the Door Sensors. As you place a magnet over each sensor watch the LCD Screen to see if it changes to "Door Closed". If the screen changes, you have found the door that has its magnet out of alignment.

To Adjust Sensor Magnet : Locate the magnet inside of the door gasket by feel. To adjust the magnet, squeeze the gasket around the magnet, this will force the magnet to slide around inside of the gasket. Close the door and check the LCD Screen. When the magnet is aligned with the sensor properly, the screen will display "Door Closed".

If you do not have any magnets, you can use one of the Magnets used for the Motion Alarm. Find one of the small round magnets on the end of the LPR inside of the Chamber. Because these magnets are small, you may have to slide them around over each sensor to make proper contact.

If after checking all of the Door Sensors you still have the error on the Display Screen, check the Computer Control Board.

Troubleshooting the Computer Control Board. Remove the top of the Chamber. Located the Main Terminal Block (TB1). It's located at the top right corner of the Interface Board. Find pin #19 (black wires) and pin #20 (red wires). **See Drawing Attached.** Remove the wires from both Terminal pins #19 and #20. Run a "JUMPER WIRE" between these two pins. Check the LCD Screen, it should display "Door Closed".

If the screen does not display "Door Closed" there is a problem with the Interface Board.

If the Screen displays "Door Closed" and you have checked the Sensors with a magnet and had negative results, then the problem is with either the Sensor(s) or the wiring to the Sensors.

4420 San Fernando Road Glendale CA 91204 818 247 7500 fax 818 247 7257 melco@melcowire.com www.melcowire.com

Door Sensor Troubleshooting

Continued

If you have not already done so, locate and remove the black and red wire from the "MAIN TERMINAL BLOCK" pins #19 and #20. See drawing of Interface Board attached.

Checking for a Short Circuit. With the cable removed from pins #19 and #20, check for a short circuit with an Ohm Meter. Check the resistance between the Red and Black wires. With the door(s) open there should be Infinite Resistance. With all door(s) closed there should be no resistance or a resistance of less than 1 Ohm.

If you find some resistance with the door(s) open there may be a short in the wires or one or more of the sensors. To find out which set of wires or sensors have the short, remove the Shrink Tubing located on the cable a few inches before the Terminal Block.

After removing the Shrink Tubing, do a visual inspection of the wires to see if you can find a short between the wires caused by the heating of the shrink tubing. If the wires all look fine, then you will have to de-solder the connections (see Wiring Diagram attached).

Check the resistance of each set of wires with an Ohm Meter. Each set of wires goes to a different set of doors. (see Wiring Diagram attached).

4420 San Fernando Road Glendale CA 91204 818 247 7500 fax 818 247 7257 melco@melcowire.com www.melcowire.com