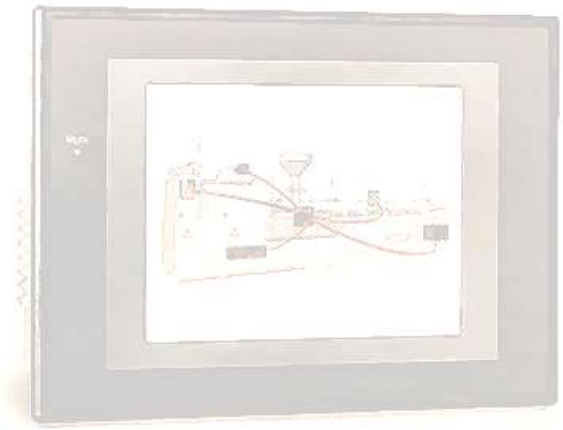
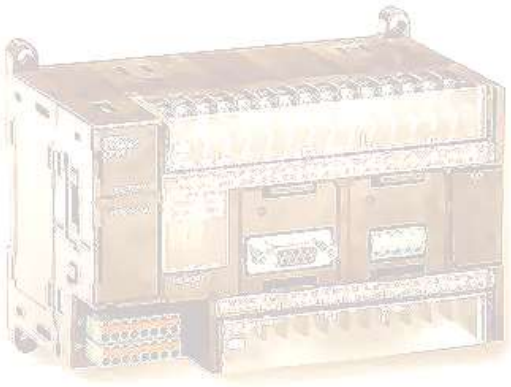
2023

Fleet Service

Proxy Sensor Adjustment





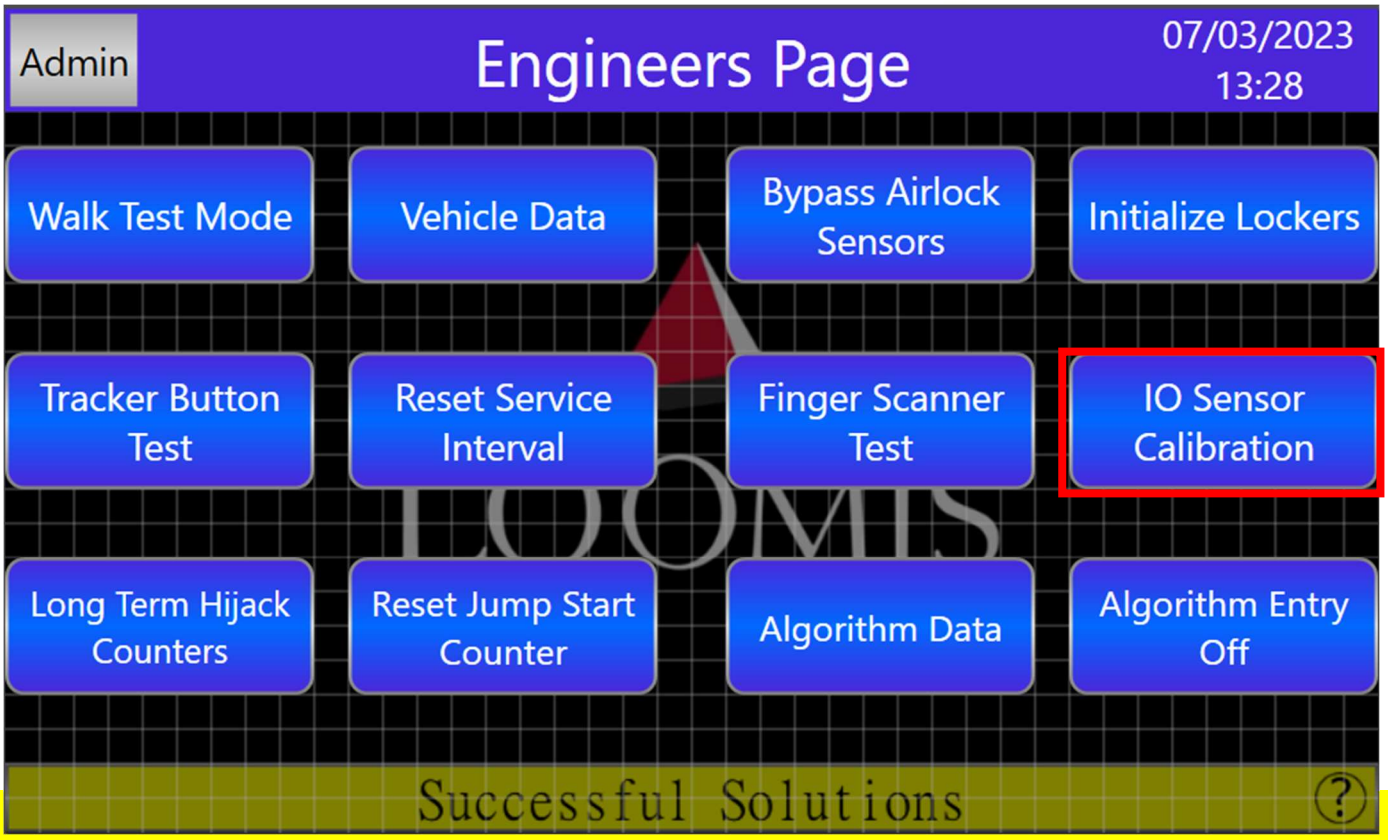
[CONVERSION]

FLEET SERVICE LTD

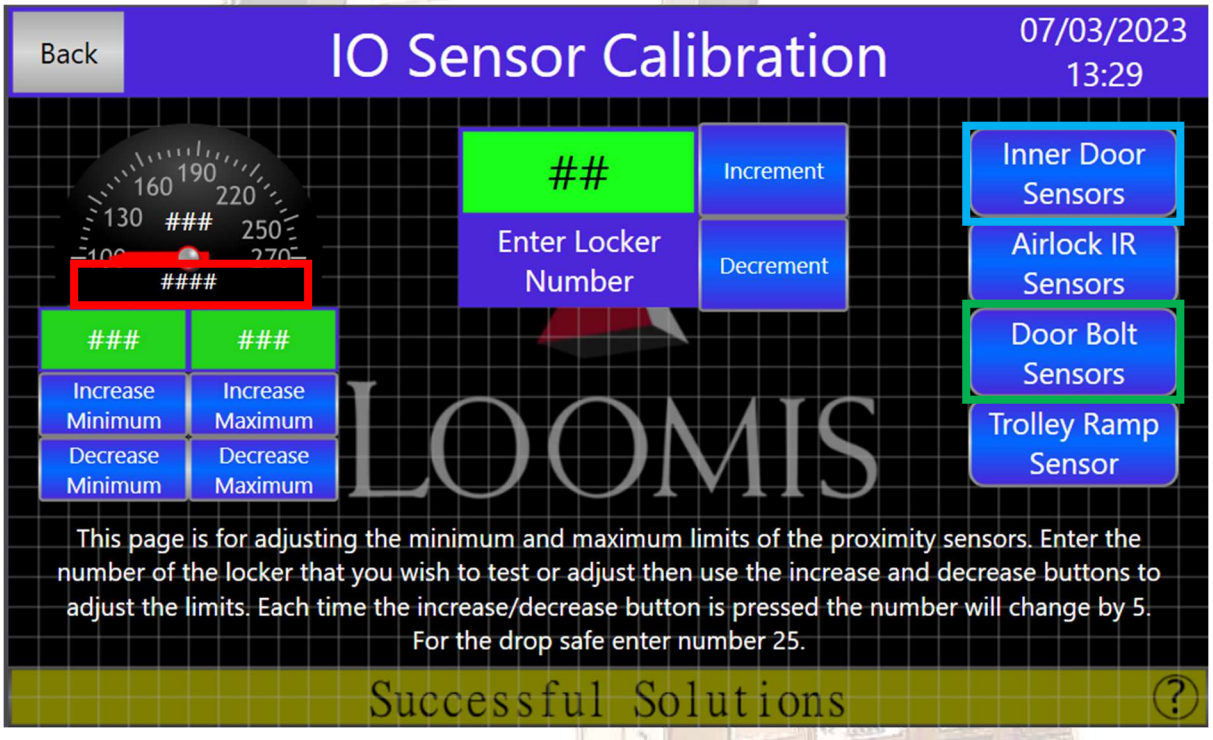
Contents

With the new system it is possible to adjust the tolerances for the proximity sensors without having to physically adjust the sensor. The sensors you can adjust are the Cab Door bolts, both inner airlock doors (Door 2 and Door 3) Locker and Drop safe closed sensors and if fit the trolley ramp sensor.

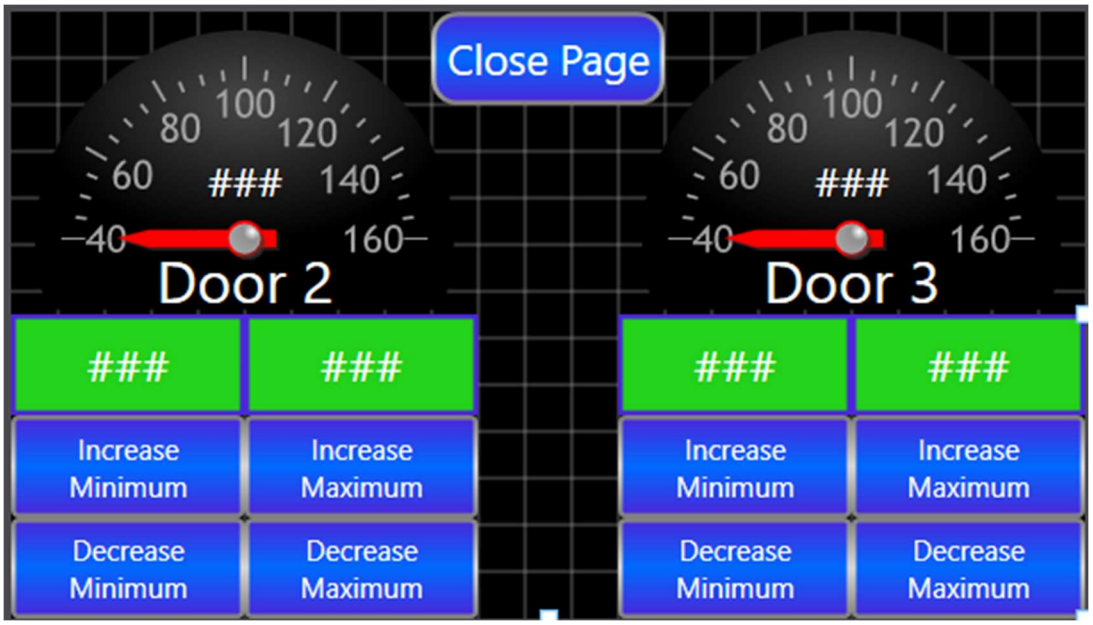
To do this go to the engineers' page in maintenance/admin mode. Then select IO Sensor Calibration



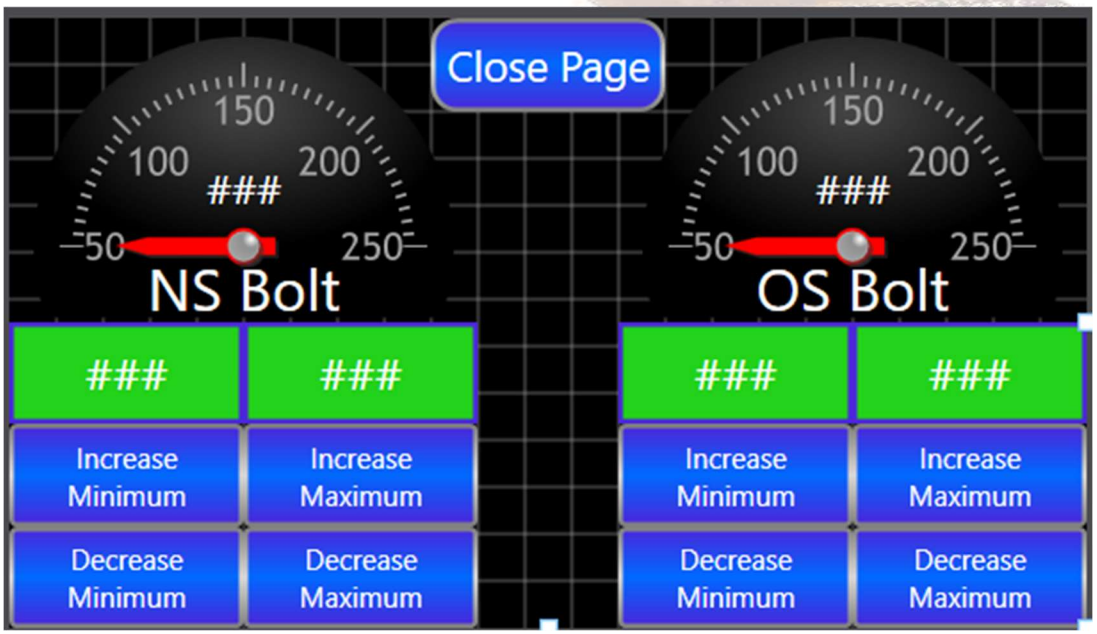
The page below will then appear. This page allows you to adjust the locker and drop safe sensors. Either enter the locker number into the Locker Number box or use the increment and decrement buttons to cycle through them one at a time. The drop safe is number 25. The locker selected will appear within the gauge here. When a locker is selected the distance value will be shown in the gauge. If the value displayed is 0 this means that the sensor either isn't connected, or it isn't detecting anything in front of it. Ensure that the minimum and maximum values are around that number as there will be a popup for the crew that warns them if the locker is out of tolerance. From this page you can then select the Inner door sensors which are the two airlock doors, the door bolt sensors which are the cab door bolts and the Trolley Ramp sensor.



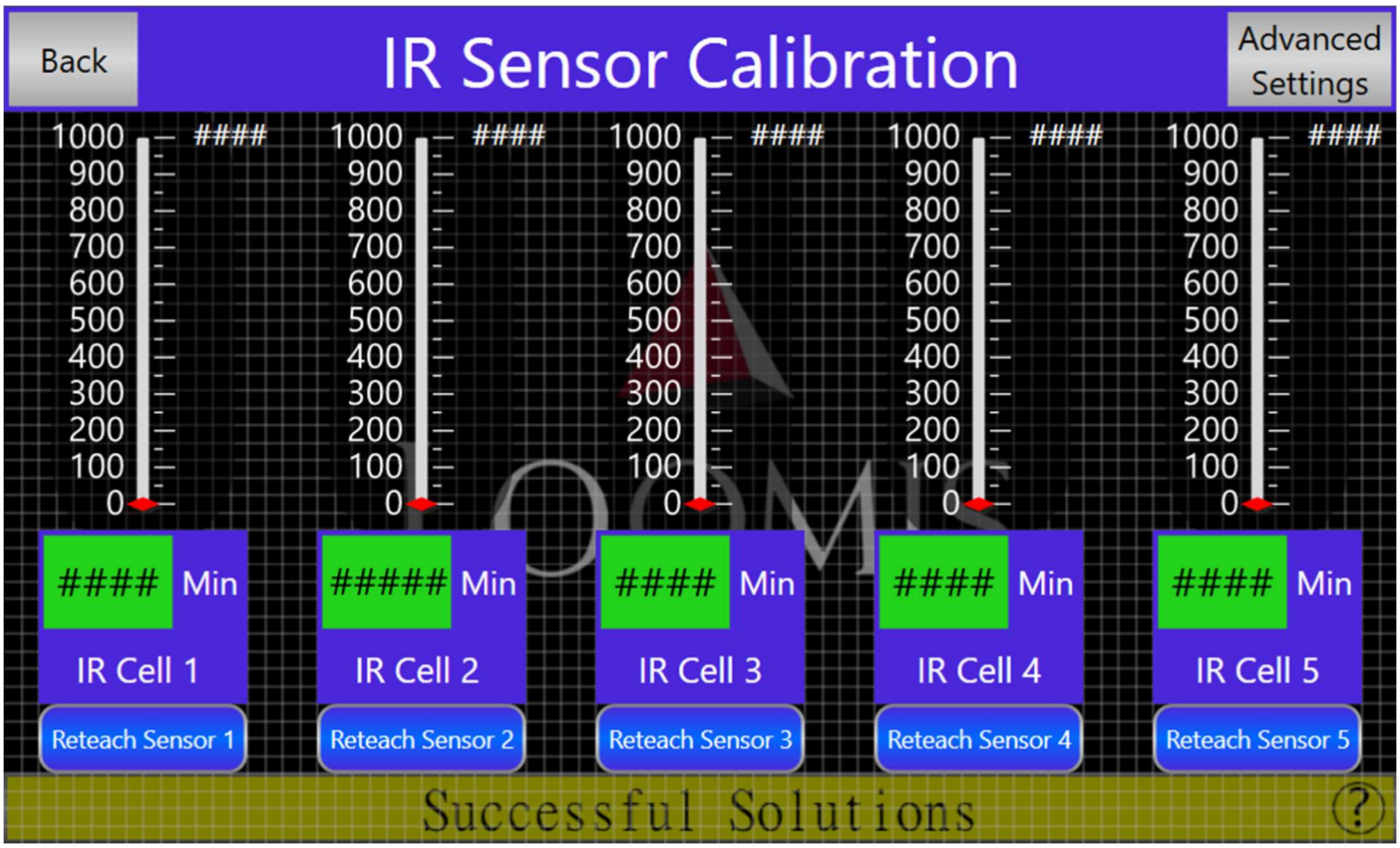
When you select inner doors this popup below will appear. This shows you the distance value of both the closed sensors. Again, ensure that the minimum and maximum values are around the value displayed as if they are incorrect the system won't see the door as secure and the vehicle will Hijack. It is worth checking that when the door is open it isn't within the tolerances so the system can detect the door being open.



When you select door bolts the popup below will appear. This shows the distance value of the cab door bolts. Again, ensure that the minimum and maximum values are around the value displayed as if they are incorrect the system won't see the bolts as secure and the system will Hijack.



The way we teach IR sensors has also changed. On the IO Sensor calibration page select Airlock IR Sensors the page shown below will then appear.



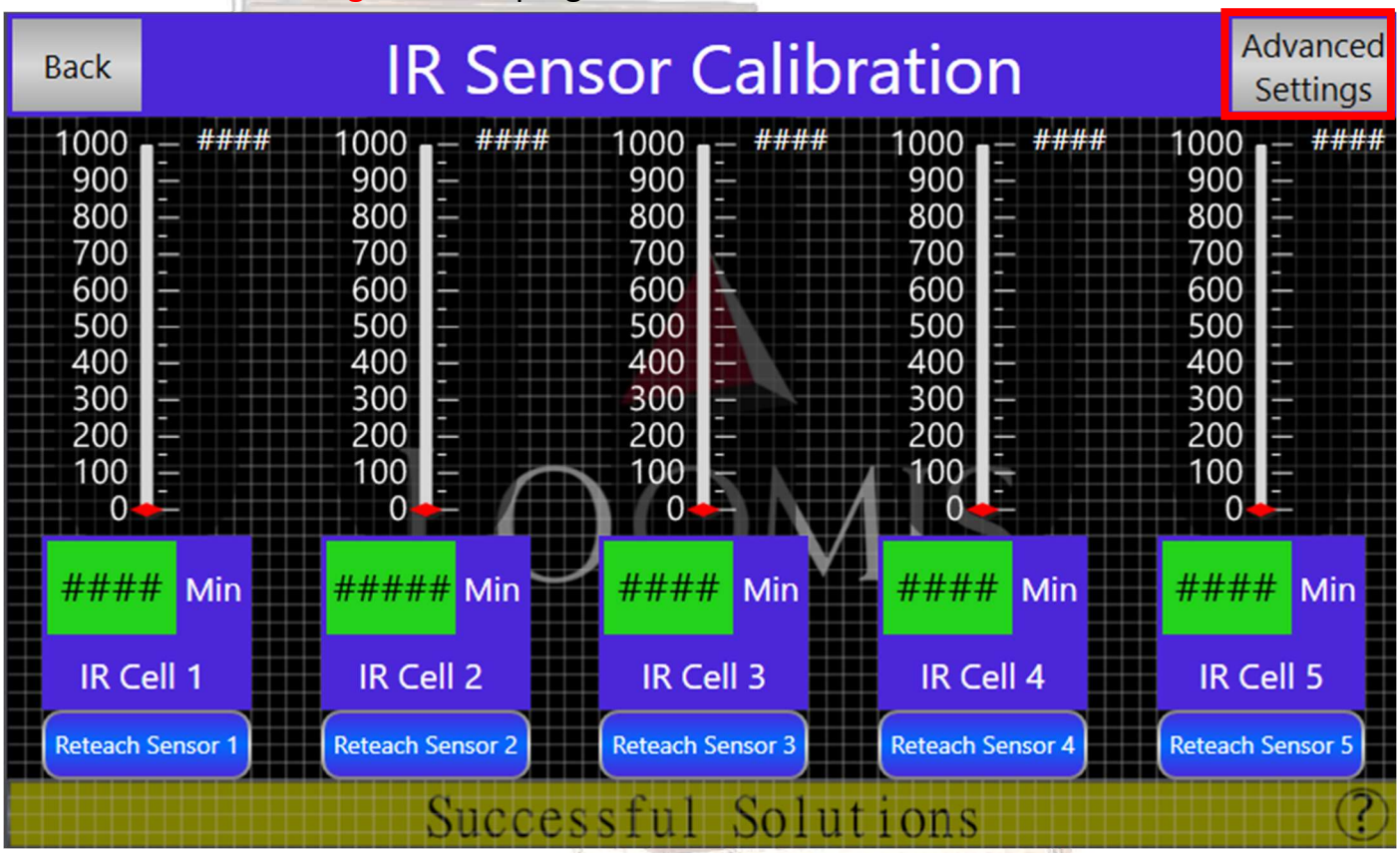
With all 3 airlock doors secure the IR sensors should give a distance value and stay relatively stable. With sensor 1,3,4 and 5 we are looking for a distance value of around 400-600 and it should sit there fairly stable and with sensor 2 we're looking for a value around 700-900. If you aren't getting a value close to that range the sensor will need physically adjusting, usually closer to the lens aimed either slightly up or down. Just keep an eye on the distance value whilst adjusting the sensor and tighten it once you have a high and stable number.

With the minimum tolerance, we're looking to set a value around 150 below the distance value shown with an empty airlock. For example, if IR sensor 2 was showing a valve of 850 I'd set a minimum of 700.

With program version 1.2 a max tolerance is no longer required as we preset it to the maximum possible since it only gets that high if the sensor is clear and we are only looking for something blocking the sensor.

With your tolerance set you should then be able to block each sensor and see the distance value drop significantly, you can also use the sensor page in Walk Test Mode to ensure that the system is picking up on the blocked sensors.

With version 1.2 we have added a too close warning for the IR sensors. For this to work we need to set a too close distance to trigger the warning. From the IR Sensor Calibration page select Advanced Settings in the top right corner.



The page below will then appear. Once opened the yellow boxes will populate with the IR sensors current switch point. The number above sensor reading will show the current distance measurement from each sensor. Cover each sensor's hole with either some tape or just your hand and check the measurement given. You then need to enter a value into the green box that is higher than the value you got when covering the sensor. With this value we will then be able to detect if someone has attempted to cover a sensor. If the value isn't set correctly it can prevent you from logging on as by default the value is 350. Once you have input the new switch point value into the green box you then need to press set switch point to save the value. To check that the value has been saved, press Refresh Reading and the yellow box should update with the value entered into the green box.

For example, if when covered sensor 1 gives a reading of 30, set the new switch point to 40, then press set switch point. Then press Refresh Readings to update the current switch point shown in the yellow box.