

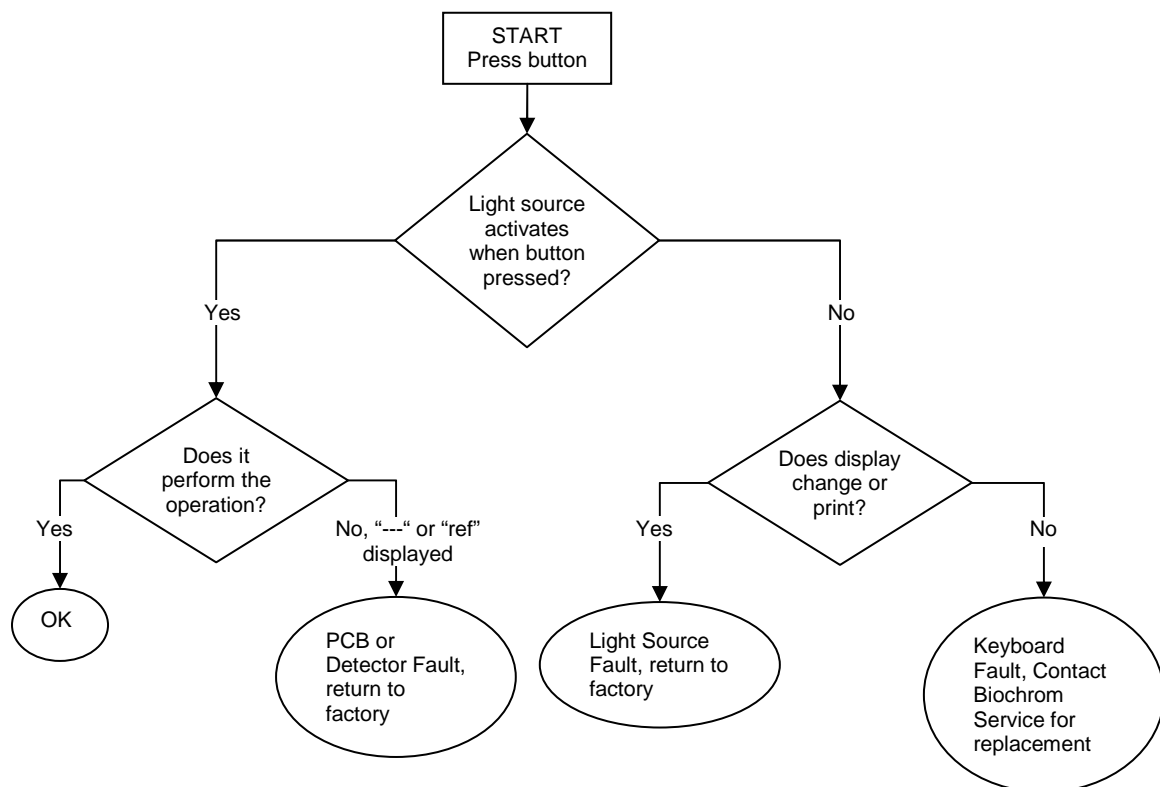
Colorimeter Fault Finding

Our colorimeters were designed to require no field servicing. As such, the detectors, PCBs and LED light sources (if fitted) require factory set-up. However, it has been found that some units develop faults with their keyboards and this can be replaced in the field

Troubleshooting in the Field

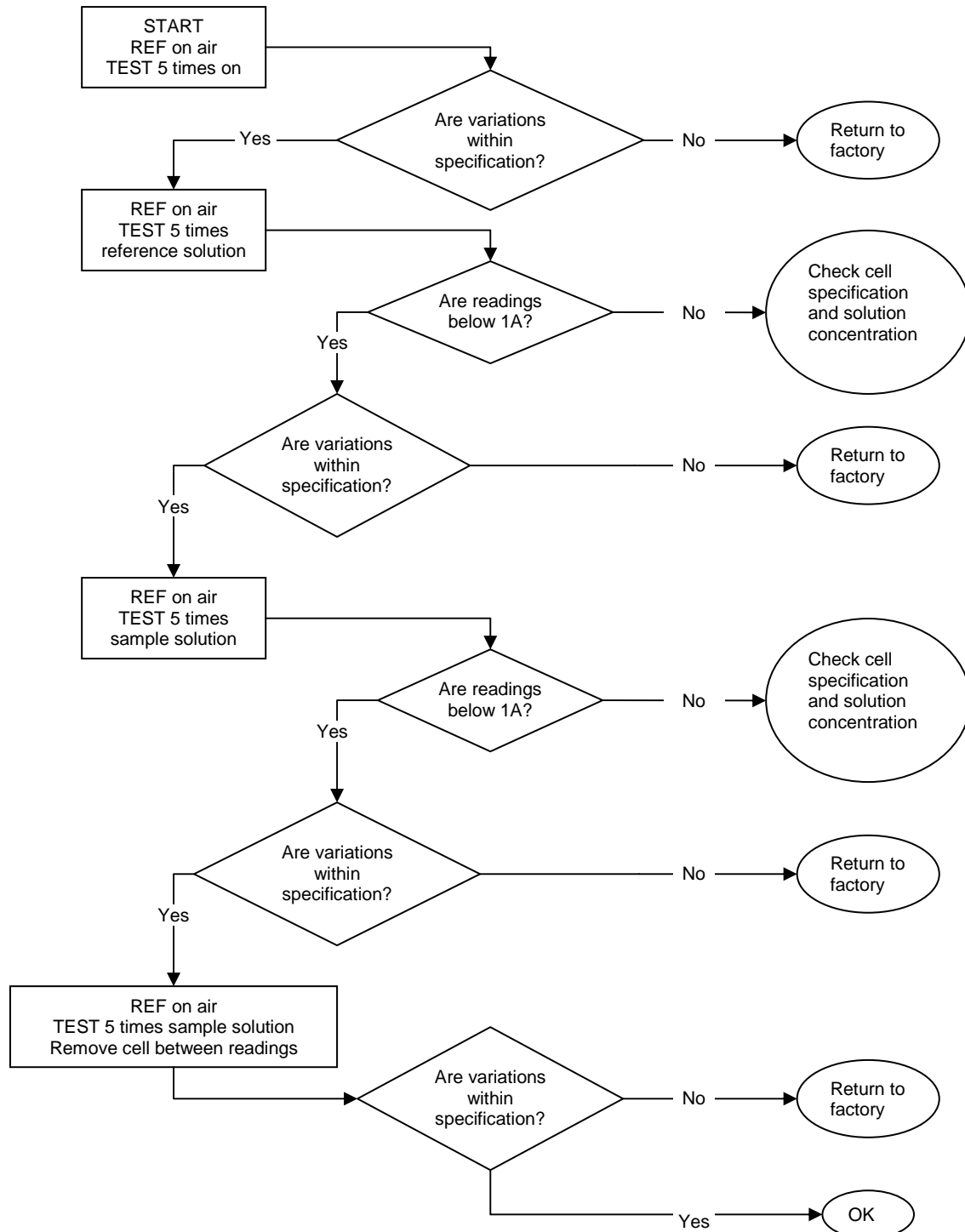
Instrument is unable to successfully perform operation

Please use the Flow chart below to determine the nature of the fault and how to proceed.



Instrument does not give expected readings

Please use the Flow chart below to determine the nature of the fault and how to proceed.



Replacing the Keypad

The Adhesive on the back of the keypad overlay is very strong so make sure you understand the instructions before attempting replacement.

Removal of top cover

1. For models with rotating filter wheels; select an empty filter position or remove the filter wheel assembly by turning the large thumb screw on the base of the instrument.
This will protect the filters from damage when the instrument is disassembled.
2. Turn the instrument upside down and remove the four screws. These screws hold the two sections of the covers together.
3. Carefully separate the top cover from the bottom.
There are no cables connecting the two halves of the instrument.

The Keypad connector

It is possible that the keypad connector has become corroded. The keypad connector should be cleaned and the keypad re-tested before it is removed from the top cover:

1. Note the orientation of the Keypad connector and then remove it.
2. Clean the keypad connector.
It may be necessary to use a wire brush or abrasive paper. Ensure that the optical components are not exposed to any foreign particles. Shield them with a plastic bag if necessary.
3. Remove any foreign particles with compressed air.
4. Clean the connector pins using alcohol.
5. Replace the keypad and place the bottom cover back on the instrument without tightening the screws.
6. Re-test the keypad. If fault has been rectified then replace the 4 screws from the covers but do not over-tighten them. The repair is now complete.
7. If the fault is still present connect the replacement keypad to the PCB. Test this keypad and make sure it rectifies the fault.

Removing the Keypad

1. With the keypad disconnected, loosen the screws which attach the PCB and optical assembly to the top cover.
2. The PCB and optical assembly are attached, carefully remove them.
3. To avoid damaging the top cover do not try to lever the old keypad off with any tools.
4. If it is difficult to remove push a flat-bladed screwdriver through the hole in the top cover which the cable runs through.
5. Work out towards a corner of the keypad overlay. The keypad overlay can then be pulled off from the front.
6. Remove the Keypad overlay and cable from the top cover.
7. The contact area of the top cover should be thoroughly cleaned with alcohol and allowed to dry.

Attaching new Keypad.

The Keypad sits in a recess in the top cover and makes a close fit. Care must be taken to ensure the overlay is positioned correctly first time. Attempting to remove the overlay when it is stuck down may damage the buttons.

1. There is a hole in the top cover for the keypad cable. Push the new cable through this hole ensuring the orientation of the keypad with respect to the top cover is correct.
2. Place the top cover on the work surface facing you as normal.
3. Remove the remainder of the backing paper from the overlay.
4. Locate one of the corners of the overlay with the edge of the recess and gently press it down.
5. Press the rest of the keypad into place.
6. The transparent window of the overlay may attract dust. Use an air duster or lint-free cloth to clean the reverse of the window without scratching the plastic.
7. If needed, clean the front face of the display in a similar fashion.
8. Replace the PCB.
9. Attach the keypad connector.
10. Reassemble the covers but be careful not to over-tighten the screws.