

## ALTERNATE CALIBRATION METHODS FOR BINMASTER CAPACITANCE PROBES

### Dual Switch Point Method

Finding uncovered switch point

1. Turn both COARSE and FINE potentiometers full Counter Clockwise (CCW).
2. Turn the COARSE pot Clockwise (CW) until the LED comes on.
3. Now turn the FINE pot Clockwise (CW) until the LED just goes off.
4. Take note of the position of the FINE pot with reference to a clock face.
5. Now continue to turn the Fine pot about another half hour clockwise.

Finding the covered switch point

6. Now fill the vessel with material until the probe is covered to the point at which you want it to indicate covered.
7. Now turn the FINE pot clockwise until the LED just turns off.
8. Take note of the position of the Fine pot with reference to a clock face. This is the covered switch point.

The difference between the uncovered switch point and the covered switch point is the effective range of adjustment of the FINE pot. As a rule of thumb the best setting for the FINE pot would be half way between these two switch points. As an example, if the uncovered switch point occurred at 9 o'clock and the covered switch point occurred at 1 o'clock then 11 o'clock would usually be the best setting for the FINE pot.

In some applications one of the 2 switch points may be very stable while the other switch point may be unstable and change a lot. An example would be where the uncovered switch may be subject to varying levels of humidity or steam but the covered switch point would be very stable. In this type of application it may be better to set the FINE pot closer to the stable switch point in order to give the unstable switch point more range to vary.

### REVERSE CALIBRATION METHOD (calibrating with the probe covered)

In applications where the capacitance probe needs to be calibrated with the probe in a covered condition start with the COARSE pot in the full clockwise (CW) position.

1. Turn the FINE pot to the 1 o'clock position.
2. Now turn the COARSE pot counter clockwise until the LED just goes off.
3. Now turn the FINE pot counter clockwise until the LED turns on.
4. Do not leave the FINE position in this position.
5. Continue to turn the FINE pot counter clockwise for the amount of sensitivity that is appropriate for the material being sensed. The more counter clockwise you turn the FINE pot, the more sensitive the probe will be and there will need to be a greater change in material to indicate an uncovered condition. If in doubt start by turning the FINE pot a half hour counter clockwise past the point where the LED turns on.