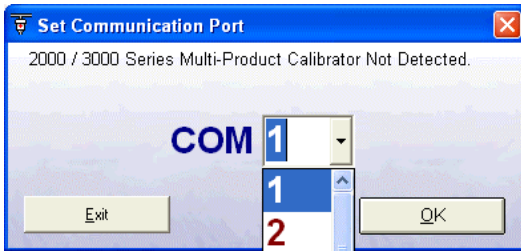


### Selecting a COM Port



On starting the virtual front panel for the first time, a COM port selection screen will be displayed. Click on the COM port that is connected to your 3000 Series calibrator to continue.



If you are using a laptop to connect to the calibrator, the COM port will usually be COM 1. A desktop computer will usually be COM 2

### Operation of the Virtual Front Panel

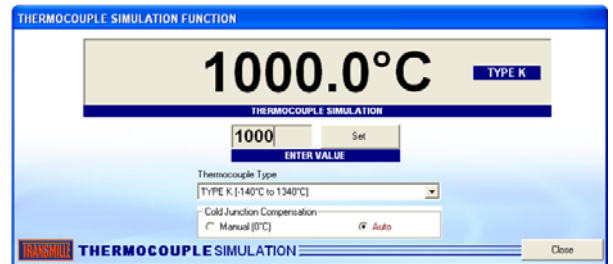
Once the correct COM port is selected, the calibrator will be detected, and the main screen displayed :



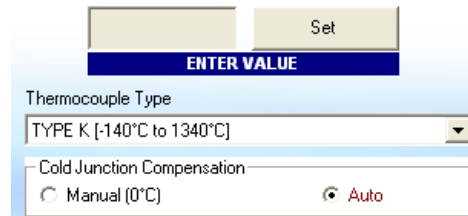
The main functions of the workstation are :

- Thermocouple Simulation
- Tachometer Calibration
- Insulation Resistance & Voltage
- Continuity Resistance & Current
- mA & mV Measurement
- Terminal Switching

### Functions : Thermocouple Simulation

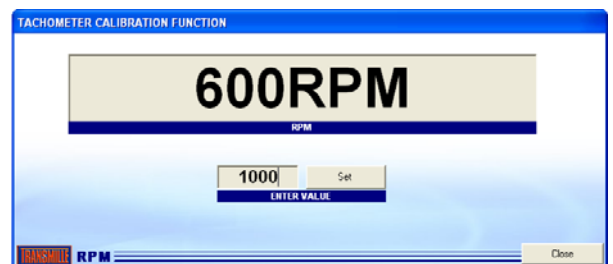


Connect temperature meter to thermocouple connector on workstation. Select a thermocouple type from the drop down list. Set manual or automatic cold junction.



Enter a temperature in the box marked ENTER VALUE, then click SET. Note if the temperature is outside the range available, a message will be displayed.

### Functions : Tachometer Calibration

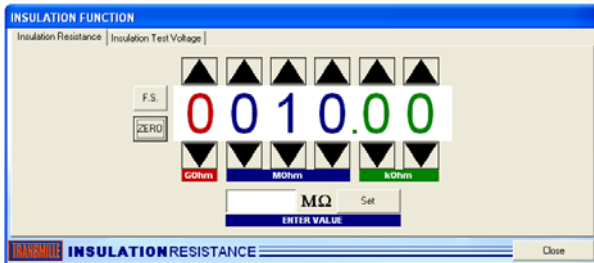


Enter an RPM value in the box marked ENTER VALUE, the press the SET button. The tachometer LED will illuminate – point the optical tachometer at the LED.



### Functions : Insulation Resistance

Select the INSULATION RESISTANCE tab



Connect meter to terminals marked Insulation resistance. Select a resistance by either :

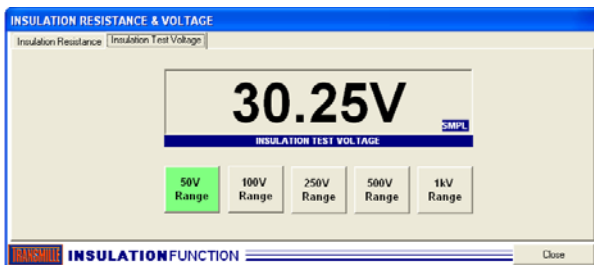
- 1 : Selecting a value using the up/down buttons
2. Entering a value (in M Ohms) in the box marked

Use the F.S. button to set to 199999

Use the zero button to jump directly to ZERO

### Functions : Insulation Test Voltage

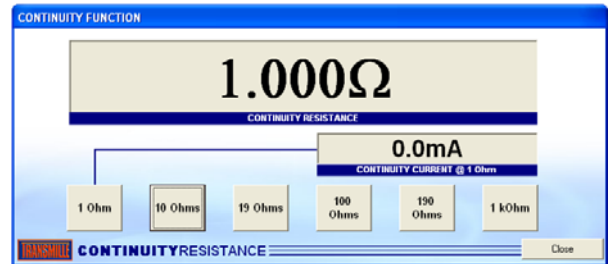
Select the INSULATION TEST VOLTAGE tab



Connect meter to terminals marked Insulation resistance.

- 1 : Select a voltage range using the range buttons
2. Apply voltage from the Insulation tester

### Functions : Continuity Resistance & Current

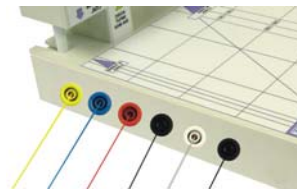


Connect meter to terminals marked continuity resistance.

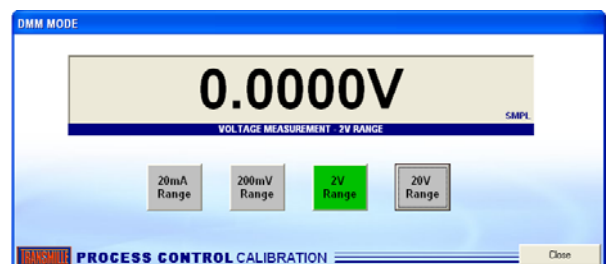
Function will default to 1 Ohm range, with continuity current measurement. Select continuity resistance as required by clicking the buttons available.

Note : Continuity current is available on the 1 Ohm range only

### Functions : mA & mV Measurement



This function requires the calibrator to be connected to the workstation using the side terminals, shown left

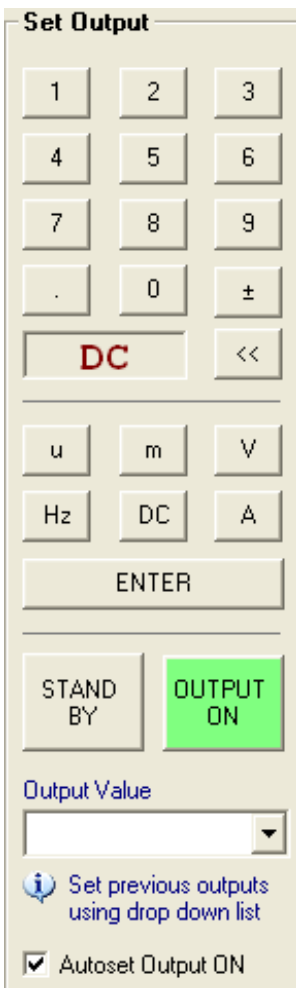
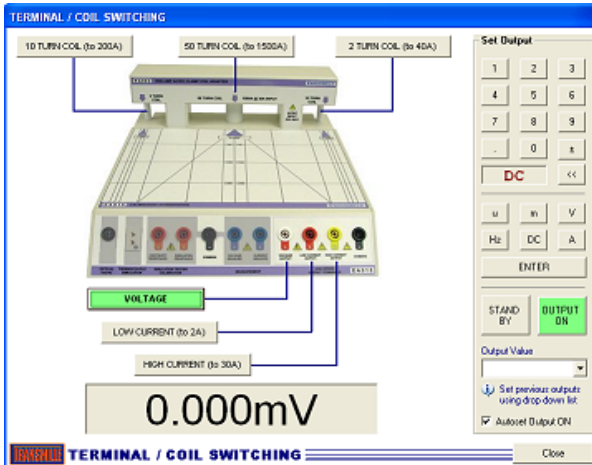


Connect meter to terminals marked voltage measure or current measure as required

Select current or voltage range as appropriate – voltage / current will be displayed on the virtual front panel display.

### Functions : Terminal / Coil Switching

This function allows the calibrator output to be controlled for voltage and current. The current value selected will automatically switch to use the coil if > 30A (direct output).



The Set Output panel, shown left, allows the user to select a value to output and then automatically set the calibrator output and switch to the appropriate terminals on the workstation adapter.

The keypad can be used to enter a value, or the value can be typed into the box provided. Then simply press the Enter button on screen or the enter key on the keyboard to set the output.



Numeric buttons 0-9 and decimal point – use these to enter a value.



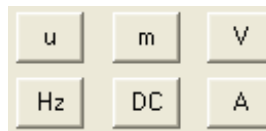
Set positive or negative value – note a number must be entered first before clicking this button



Backspace – use this to erase the last character entered in the output value box.



Frequency setting display – DC or a frequency, eg. 50Hz



select u, m multipliers and also set voltage or amps – note changing from voltage to amps is done automatically

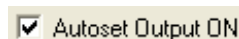
based on the output value selected



Once the output value is set, press the enter button to set the output.



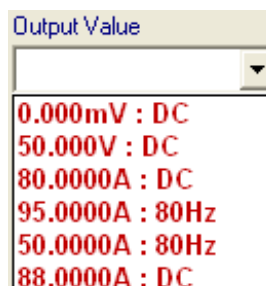
Use the STANDBY and OUTPUT ON buttons to control the output.



The Autoset Output On option allows the output to be automatically switched on when a value is entered. If this option is unchecked, the output will not be switch on automatically, but left set in standby.



When high voltage (>40V) is output, the Autoset Output ON is not available.



The output values set can be selected from the drop down list, allowing any previous value to be easily selected.

Manual terminal selection can be made by clicking on the appropriate button



This function allows the voltage / current outputs terminals from the calibrator to be switched to the corresponding workstation terminals.



Each of the clamp coil sections can also be automatically switched by clicking on the appropriate button.

