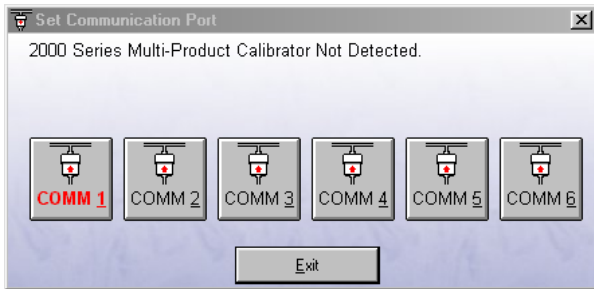


### Selecting a COM Port



On starting the virtual front panel for the first time, a COM port selection screen will be displayed. Click on the COM port which is connected to your 2000 Series calibrator to continue.

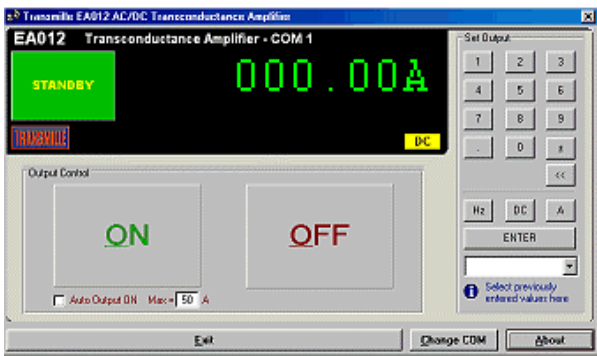
A different COM port can be selected at any time using the **Change COM** button.



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 screen comprises of a main reading display and output select buttons.

AC/DC mode is indicated on the main display by **DC** or **AC**

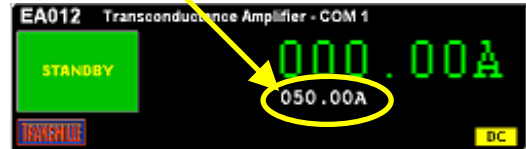
### Functions : Setting a Current Output

The DC current function output up to a maximum of 100A. There are three methods for entering a value :

1 : Type in a value using the keypad followed by



After pressing the 'A' button, the value will be shown in the 'pre select' area below the main output display



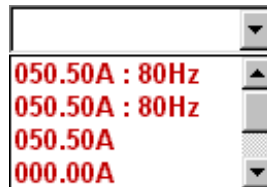
Pressing **ENTER** will confirm the output and set this to the main display

2 : Type a value into the list box



Then press enter on the PC keyboard – this will set the value directly to the main display (no preselect)

3 : Select a previously entered value (which is stored in the drop down list)



This will set the value directly to the main display (no preselect)

Unless Auto Output ON mode is set (see below) The output will remain off until the output ON button is pressed. This will also initiate the high current thermal protect mode if the current is > 50A (see high current operation section).



### Functions : AC Output

To set AC output, all that is necessary is to enter a frequency using the **Hz** button. To set back to DC at any time, simply enter zero Hz or press **DC**.

### Auto Output mode

By clicking the Auto Output ON checkbox, values can be output immediately without having to use the output control ON or OFF buttons.

This output control works together with a limit control to determine the maximum current up to which the output will be turned on automatically.

Simply enter the maximum current allowed for auto output ON – the output will only switch on automatically if the current value set is less than the value entered in the MAX. box.



### High Current Operation

For current output above 50A, the virtual front panel employs a thermal protection mode. This activates as soon as a current above 50A (AC or DC) is set and allows a maximum of 30s continuous output above this 50A limit.

The front panel display will indicate the remaining time allowed for continuous operation before standby is automatically selected :



**TIMEOUT IN 28s**

After the 30 seconds has elapsed, the output will be limited to a maximum of 50A for a further period of 30s, to allow for unit cooling.



**50A LIMIT FOR 21s**

### Output Error Detection

If the calibrator controlling the transconductance amplifier should detect an output error (eg. terminals open circuit), the virtual front panel program will display

**OUTPUT ERROR**

The output will also be set to standby.

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