

2102 Breakdown / Hipot Tester Calibration Adaptor



- 3kV & 12kV AC/DC Measurement Ranges
- 200uA • 2mA • 20mA Current Ranges
- 200uA : 5MΩ • 10MΩ • 20MΩ Loads
- 2mA : 500kΩ • 1MΩ • 2MΩ Loads
- 20mA : 50kΩ • 100kΩ • 200kΩ Loads
- Current ranges : 1kV maximum
- Power On & Overload Indicators
- Requires 3200 Electrical Test Equipment Calibrator

Overview

The breakdown / Hipot tester calibration adaptor provides a single solution to the calibration of these types of instrument.

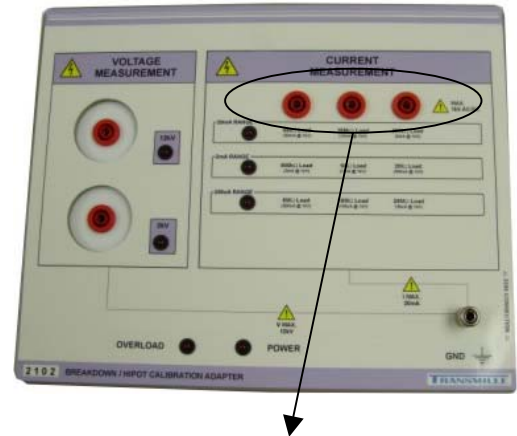
Providing three ranges and controlled from the 3200, this adaptor can measure voltage outputs from these types of tester, and also supply current loads at set points.

Voltage Measurement

Using two separate PTFE isolated terminals, the breakdown tester adaptor allows the measurement of outputs up to 3kV and 12kV. Simply connect the tester between ground and the appropriate voltage terminal, and use the 3200 to select the voltage range (3kV / 12kV AC/DC) and read back the voltage measured from the display of the 3200.

Current Load

Using three electronically selectable ranges, the breakdown tester adaptor can provide nine current loads. Simply select the required current range using the 3200 'softkeys' and plug the breakdown tester between ground and the appropriate resistor socket.



20mA RANGE	+	50kΩ Load (20mA @ 1kV)	100kΩ Load (10mA @ 1kV)	200kΩ Load (5mA @ 1kV)
2mA RANGE	+	500kΩ Load (2mA @ 1kV)	1MΩ Load (1mA @ 1kV)	2MΩ Load (500uA @ 1kV)
200uA RANGE	+	5MΩ Load (200uA @ 1kV)	10MΩ Load (100uA @ 1kV)	20MΩ Load (50uA @ 1kV)

Specifications

AC/DC Voltage Measurement Accuracy		
Range	1 Year Rel. % ± Counts	
3kV	0.5	± 3
12kV	0.5	± 3

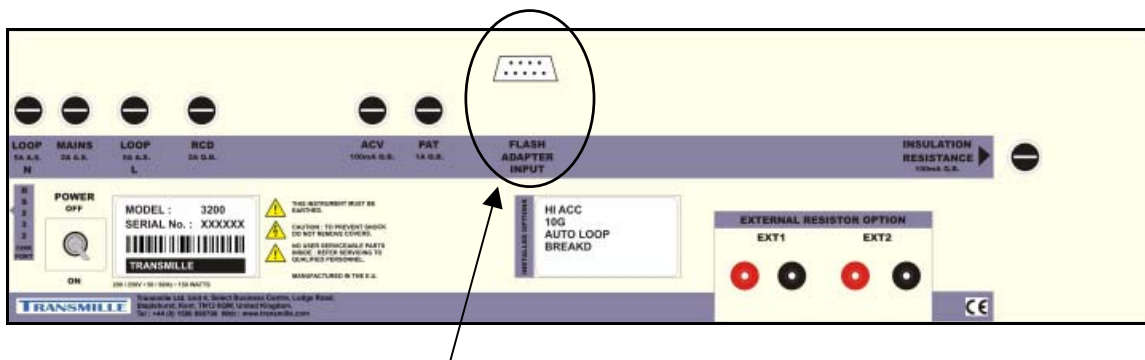
AC/DC Current Load Accuracy		
Range	1 Year Rel. % ± Counts	
200uA	0.5	± 3
2mA	0.5	± 3
20mA	0.5	± 3



Breakdown / Hipot Tester Calibration Option

For the 3200 Electrical Test Equipment Calibrator

Breakdown / Hipot Tester Adaptor Connection



The breakdown calibration adaptor is supplied complete with integrated connection lead. Simply connect this lead to the rear of the 3200 electrical test equipment calibrator in the socket marked 'Flash Adaptor'.

Using the Breakdown / Hipot Tester Adaptor

Calibration using the breakdown tester adaptor is achieved using the following methods :

Voltage Measurement

1. Connect the breakdown tester to the adaptor as shown below

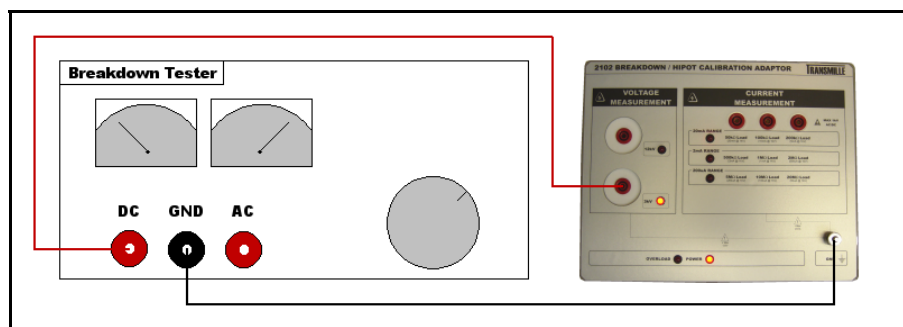


Fig 1 : 3kV DC Connection

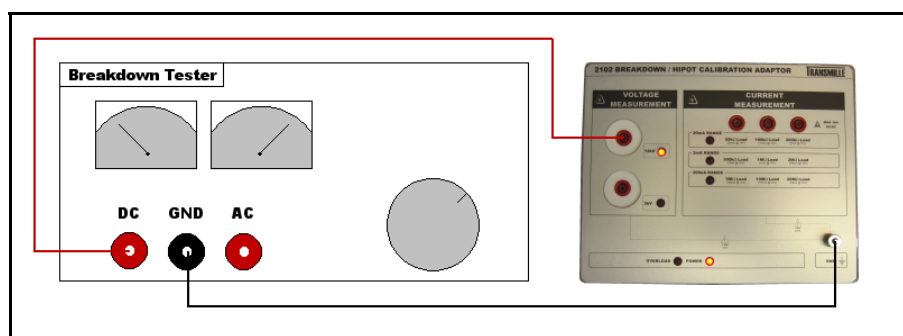
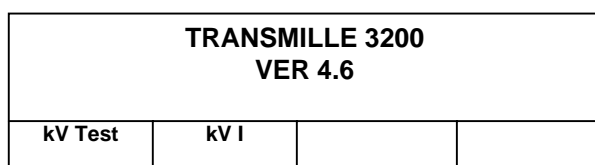


Fig 2 : 12kV DC Connection

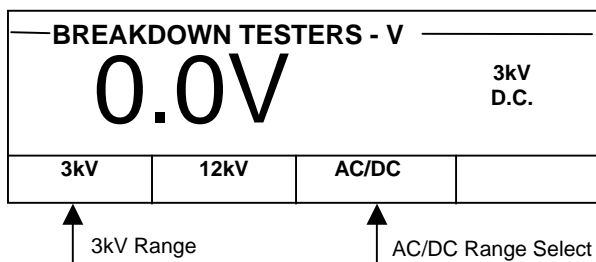
2. Select breakdown tester voltage calibration mode using the 3200 softkeys :



Breakdown Tester Voltage Calibration Mode



3. Select the required voltage range and select AC or DC using the softkeys



① **Note** : when a range is selected, the corresponding LED will illuminate on the breakdown tester adaptor.

4. Apply the voltage from the breakdown tester and read back from the display of the 3200

① **Note** : If the overload indicator illuminates, this means the voltage has exceeded the maximum for this range.

Current Load

1. Connect the breakdown tester to the adaptor as shown below :

① **Note** : The resistor value for the terminal position is indicated by the illuminated LED. So, for example, the 20mA range as shown below is active (the LED is red) and the relevant resistor ranges are indicated by the dotted lines.

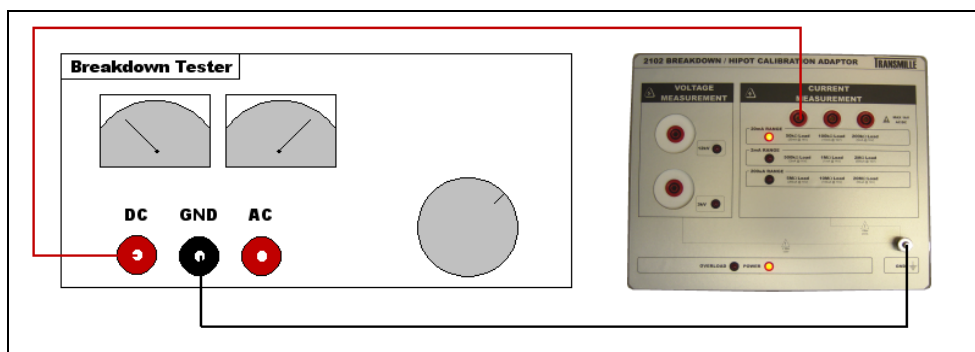
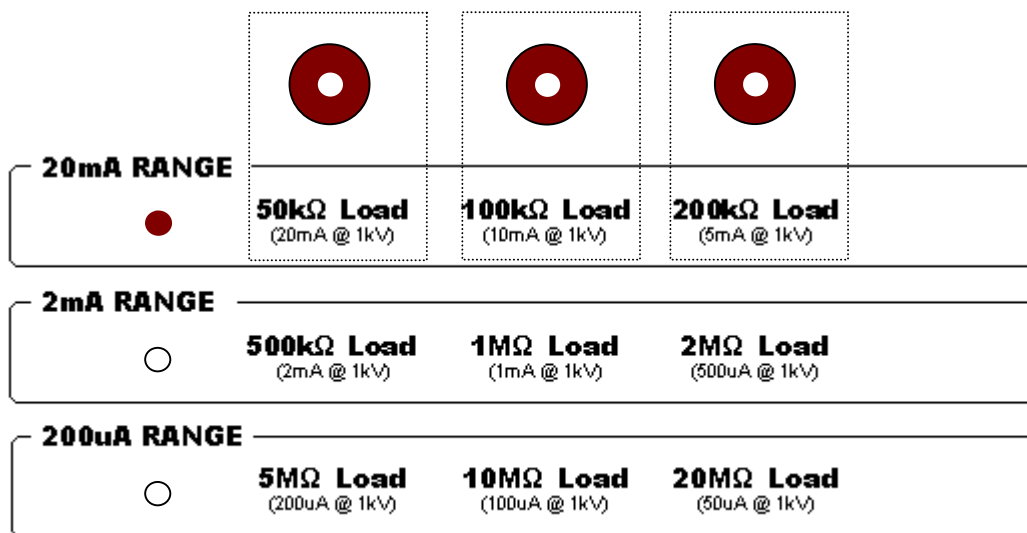


Fig 3 : 20uA (50kΩ load) DC Connection

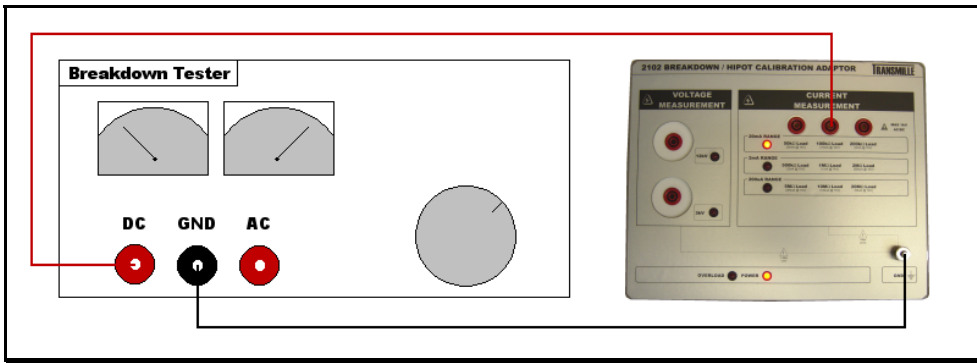


Fig 4 : 20uA (100kΩ load) DC Connection

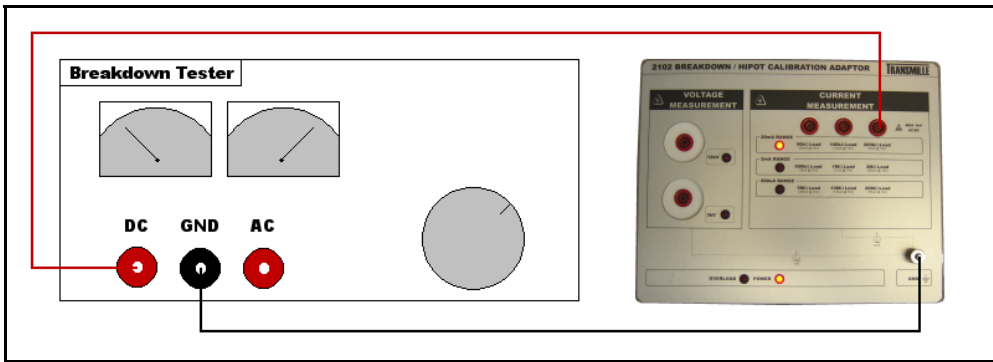
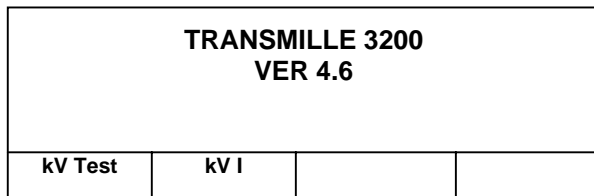


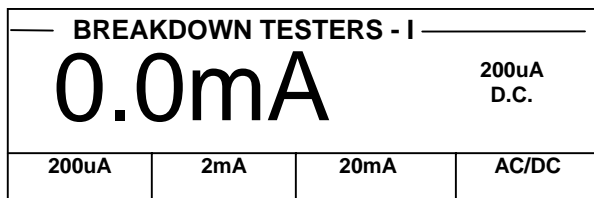
Fig 5 : 20uA (200kΩ load) DC Connection

- Select breakdown tester current calibration mode using the 3200 softkeys :



← Breakdown Tester Current Calibration Mode

- Select the required current range and select AC or DC using the softkeys



↑ 200uA Range ↑ AC/DC Range Select



① **Note** : When a range is selected, the corresponding LED will illuminate on the breakdown tester adaptor.

- Read the current load from the indicator on the breakdown tester.