



TITLE		PART NO
PRODUCTION TEST SPEC		6172-159
USED ON	BM400/2 SERIES & BM80/2 SERIES	PAGE 1 OF 2

- Notes: 1 'BM80/2 series' includes BM81/2, BM82/2 etc and BM80A/2 etc.
 2. This test specification is suitable for any BM400/2 or BM80/2 type instruments, simply omit tests that the instrument cannot do.

Initial test procedure:

Before connecting the Instrument to the test box visually inspect the centre customised connector terminal. This should have two flats machined onto its body, if this is not the case or the connector only has one flat machined reject the instrument.

Connect instrument to BM80/2 SP1 Test box (T No. 213) using +ve terminal and custom connector terminal on instrument, select lowest available insulation range on instrument. Press test button on test gear, instrument must read approx. 1Mohms. If this test fails do not proceed, reject instrument.

Switch the instrument to the OFF position and then return the range switch to the lowest insulation position. The red LED on the serial test box (T No 1582) should illuminate twice in quick succession. If this does not happen or it is only illuminated faintly reject the instrument.

Set Battery volts to LOW.
 Fit a locking type test button.

Select 'Battery check'.
 Press the Test button and rotate its centre so that it locks down.
 After a short delay, read 5.9 to 6.6 V.
 Release the Test button and observe:

- (1) Display segment check.
- (2) Instrument type display code.
- (3) Software version number. **(For MK2 instruments the version should read P 1.0)**

Set battery volts to HIGH.
 Press and release Test button, and read 7.0V to 8.8V.
 Set battery volts back to LOW

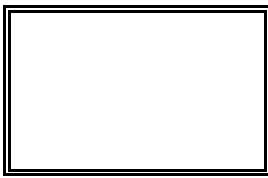
Calibration test:

<u>Range</u>	<u>Apply</u>	<u>Read</u>
1. Volts *	o/c	000V Not 0V
2. Press test button to change resolution	3 Vdc	2.8V - 3.2V
3. <i>BM80/2 series only:</i>	3 Vac	2.8V - 3.2V
4. Press test button to change resolution	240 Vdc	237V- 243V
5.	240 Vac	237V- 243V
6.	500 Vac	491V- 509V
*For instruments without a voltage range select MΩ 500V, apply 240Vac and check that the display flashes.		
7. Ohms	0 Ω	0.02Ω - 0.25Ω
8. Press button momentarily to zero reading.	0 Ω	-0.00Ω - 0.01Ω (-0.00 must not flash)

Ensure zero active flag is on before proceeding.

9.	9Ω	8.81Ω - 9.19 Ω
10.	12Ω	11.6Ω - 12.4 Ω
11.	90Ω	87.2Ω - 92.8 Ω
<i>For BM80/2 series</i>	"	88.1Ω - 91.9Ω
12.	1Ω	201 to 211 mA s/c current(on test box)
13. Buzzer	1Ω	Buzzer must sound.

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14. kΩ	0 Ω	00.0 Ω	
15.	100Ω	00.0 kΩ - 0.02kΩ	
16.	50kΩ	47.4 kΩ - 52.6kΩ	
	<i>For BM80/2 series (not BM80A/2)</i>	"	48.4 kΩ - 51.6kΩ
17.	∞	Pointer must indicate	∞

Press the Test button for each of the following tests(read output voltage on test box).
If an instrument does not have a particular range, the test should be omitted.

18. MΩ 50V	*505 MΩ	51 V - 57 V	
19. MΩ 100V	"	101 V - 114 V	
20. MΩ 250V	"	251 V - 286 V	
21. MΩ500V	"	502 V - 568 V	
22. MΩ 1000V	"	1004 V - 1146 V	
23. MΩ 1000V	1 MΩ	0.97MΩ - 1.03 MΩ & OPV>1002	
24.	9 MΩ	8.82MΩ - 9.18 MΩ	
25.	*505 MΩ	*495 MΩ - 515 MΩ (± 10 MΩ)	
26. MΩ 500V	0 MΩ	0 MΩ	
27.	0.1MΩ	Short circuit current: 1mA to 2mA(on test box)	
28.	250kΩ	0.23MΩ - 0.27MΩ	
29.	500kΩ	0.48MΩ - 0.52MΩ & OPV >502	
30.	*505 MΩ	*495 MΩ - 515 MΩ (± 10 MΩ)	
31.	25 GΩ	22GΩ - 28GΩ (Pointer must indicate ∞)	
32. MΩ 250V	250kΩ	0.23MΩ - 0.27MΩ & OPV >250	
33.	*505 MΩ	*495 MΩ - 515 MΩ (± 10 MΩ)	
	<i>For BM80A/2</i>	"	*490 MΩ - 520 MΩ (± 15 MΩ)
34. MΩ100V	*505 MΩ	*490 MΩ - 520 MΩ (± 15 MΩ)	
	<i>For BM80A/2</i>	"	*483 MΩ - 527 MΩ (± 22 MΩ)
35. MΩ 50V	*505 MΩ	*485 MΩ - 525 MΩ (± 20 MΩ)	
	<i>For BM80A/2</i>	"	*470 MΩ - 540 MΩ (± 35 MΩ)
36. OFF	Display goes out with no segments showing.		

* These specifications only apply to test box T NO 2098 , if this is not the one being used the value marked on the test box should be read and the limits calculated using the bracketed ± figures.

OPV is the output volts read off the test box.

On succesful completion, remove the test button and fit the oval quality label in the recess provided on the back of the instrument.

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