



12/24V

# DUAL BATTERY VOLT METER



P/No DBM100

## **WARNING**

- Before installation, please make sure that the vehicle is stationary, the engine is switched off and cool.
- This product is designed for use in vehicles with a 12V or 24V electrical system ONLY.
- Be careful when laying wires, not to cause any electrical shorts or wire breakage.

## **FEATURES**

### **L.E.D DUAL VOLTAGE DISPLAY**

Sharp and crisp coloured LED display allows you to monitor the condition of your batteries.

### **HIGH/LOW VOLTAGE ALARM**

The DBM100 alerts you with a buzzer and visual display indicating high or low battery voltage warning allowing you to maintain your batteries in peak condition and get the most from your dual battery system.

### **ADJUSTABLE DAYTIME/NIGHT-TIME BRIGHTNESS**

Adjust between 3 levels of daytime/night-time brightness.

### **AUTOMATIC DIMMER**

Wire to the vehicles head lamp circuit for automatic dimming when head lamps are switched on for more comfortable night viewing.

### **DUAL VOLTAGE**

Suitable for 12 and 24V batteries (0–36V)

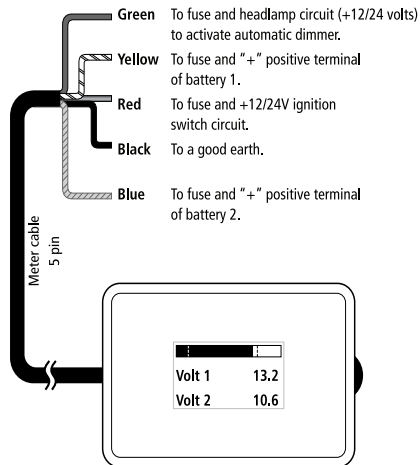
### **BATTERY MONITORING**

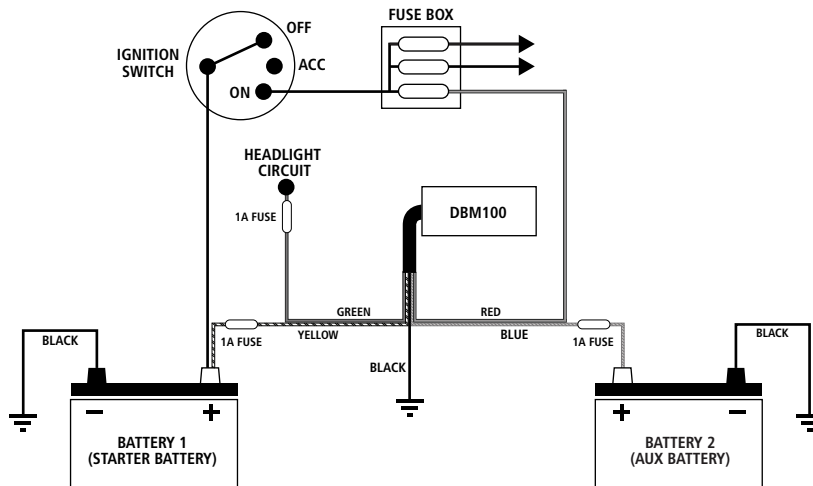
Can check the battery status when ignition is off by pressing the button on the side.

## INSTALLATION

1. Disconnect the negative (-) battery cables from battery 1 & battery 2.
2. Connect the 5 wires as per the WIRING DIAGRAMS.
3. Reconnect the negative (-) battery cables to battery 1 & battery 2.
4. Turn on the engine and check that the DBM100 is working.
5. Clean the surface of the location where you intend to attach the meter.
6. Use the provided double-sided tape to stick the meter to the surface.

## WIRING DIAGRAMS



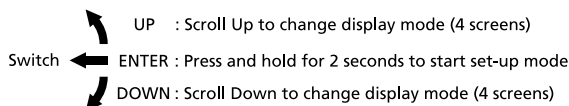
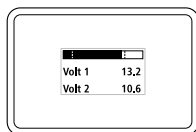


**Note:** Fuses not included with unit, it is recommended fuses are installed where shown on the above wiring diagram.

## OPERATIONS & SETTINGS

### GETTING STARTED

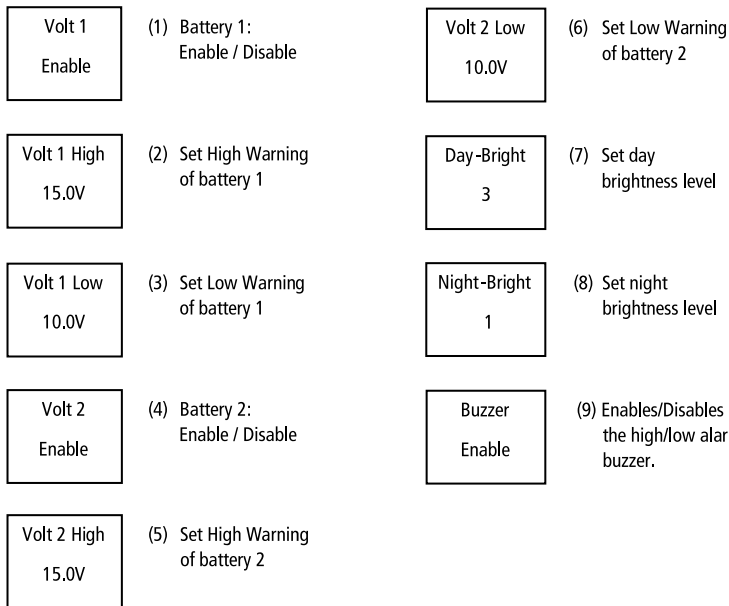
The DBM100 allows you to customise the display and settings to best suit your batteries and application.



- Step 1** To begin the set up mode press "ENTER" and hold down for 2 seconds.
- Step 2** Adjust the settings by scrolling "UP/DOWN" until the desired value is reached.
- Step 3** Press "ENTER" to confirm the settings and move into next stage.

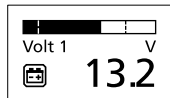
The following diagrams illustrate each of the 6 stages that can be customised in the order they appear.

Note: "Battery 1" displayed as "Volt 1", "Battery 2" displayed as "Volt 2".

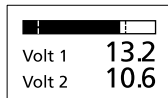


## DISPLAY MODE

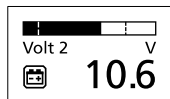
The DBM100 features 4 display options to best suit your application.



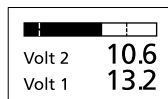
**Display 1**  
Battery 1 only



**Display 3**  
Battery 1 & 2 (level indicator shows battery 1)



**Display 2**  
Battery 2 only



**Display 4**  
Battery 2 & 1 (level indicator shows battery 2)

To change between the display options, scroll "UP" or "DOWN" repeatedly until desired display is showing.

## HIGH/LOW VOLTAGE ALARM

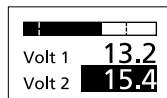
The DBM100 will alert you if either of your batteries reach the high or low voltage level (see "Getting Started" stages 2–3 & 5–6), allowing you to correct the problem and prevent permanent battery damage.

When a high or low voltage is reached, the screen will flash and the buzzer will sound and the voltage in question will be highlighted.

In the event the buzzer sounds it can be cancelled by pressing the "ENTER" Key. It will trigger again if another High or Low voltage condition occurs. The buzzer can be enabled or disabled in the menu settings.

### High Voltage warning:

High voltage warning may indicate a problem with the vehicle's alternator or circuitry.



### Low Voltage warning:

Recharge the battery immediately. Failure to do so may cause permanent battery damage.

## CALIBRATION MODE (For Advanced Users Only)

**Note:** The DBM100 is ready for use and has been calibrated using certified equipment.

Advanced users wishing to calibrate the voltage settings to meet specific requirements can do so by following the steps below.



- Step 1** Turn on the DBM100 either turn the ignition or press the side button.
- Step 2** Hold down "SCROLL DOWN" button for 5 seconds.
- Step 3** Press "ENTER" once screen lights up showing "Calibration for advanced user only".
- Step 4** Scroll "UP/DOWN" to select calibration data for battery 1.
- Step 5** Press "ENTER" to set calibration data for battery 1.
- Step 6** Scroll "UP/DOWN" to select calibration data for battery 2.
- Step 7** Press "ENTER" to set calibration data for battery 2 and return to display mode screen.

## CONTENTS

DBM100	
Dual voltage meter	x1
Double-sided tape	x2
Instruction manual	x1

## SPECIFICATIONS

P/No: DBM100	12V	24V
Current Draw (Ignition ON):	16mA	18mA
Current draw (Ignition Off)	6mA	7mA
Operating & Display Range Battery 1 & 2	0–36V At least one of the two batteries needs to be above 5.0V for the display to operate.	
Cable length	1.5m	
Size (mm):	55 x 35 x 15	



## **WARRANTY**

### **Applicable only to product sold in Australia**

Brown & Watson International Pty Ltd of 1500 Ferntree Gully Road, Knoxfield, Vic., telephone (03) 9730 6000, fax (03) 9730 6050, warrants that all products described in its current catalogue (save and except for all bulbs and lenses whether made of glass or some other substance) will under normal use and service be free of failures in material and workmanship for a period of one (1) year (unless this period has been extended as indicated elsewhere) from the date of the original purchase by the consumer as marked on the invoice. This warranty does not cover ordinary wear and tear, abuse, alteration of products or damage caused by the consumer.

To make a warranty claim the consumer must deliver the product at their cost to the original place of purchase or to any other place which may be nominated by either BWI or the retailer from where the product was bought in order that a warranty assessment may be performed. The consumer must also deliver the original invoice evidencing the date and place of purchase together with an explanation in writing as to the nature of the claim.

In the event that the claim is determined to be for a minor failure of the product then BWI reserves the right to repair or replace it at its discretion. In the event that a major failure is determined the consumer will be entitled to a replacement or a refund as well as compensation for any other reasonably foreseeable loss or damage.

This warranty is in addition to any other rights or remedies that the consumer may have under State or Federal legislation.

## **IMPORTANT NOTE**

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

**Distributed by**

**AUSTRALIA**

**Brown & Watson International Pty Ltd**

Knoxfield, Victoria 3180

Telephone (03) 9730 6000

Facsimile (03) 9730 6050

National Toll Free 1800 113 443

**NEW ZEALAND**

**Narva New Zealand Ltd**

22–24 Olive Road

PO Box 12556 Penrose

Auckland, New Zealand

Telephone (09) 525 4575

Facsimile (09) 579 1192