

# USING THIS PUBLICATION

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## **Health and safety**

Always follow health and safety guidelines, specifically those detailed in the Workshop Manual.

## **Using this publication**

The information provided in this publication is for use only by competent, qualified auto-electricians. Good product knowledge is assumed, as well as the ability to access and use recommended test equipment and other reference material provided.

### ***Test equipment and other reference material***

The information in this publication should be used in conjunction with the recommended test equipment; refer to Workshop Manual. Other reference material includes: Technical Service Bulletins (TSB) and the Workshop Manual.

The Electrical Reference Library (ERL) may also prove useful since it provides detailed connector information.

### ***Battery disconnection and reconnection***

It is imperative that any information relating to battery disconnection and reconnection is followed; refer to the appropriate sections in the Workshop Manual.

### ***Fault Diagnosis***

Always use the recommended test equipment for correct and reliable fault diagnosis, refer to the Workshop Manual.

### ***Harness Repair***

Repairs should only be undertaken for connectors where a Service Repair Kit is available; refer to the appropriate Electrical Reference Library (ERL).

**Note:** Fibre Optic circuits cannot be repaired; refer to the Workshop Manual.

## Section numbering

The sections in this publication are ordered to match the Global Outline numbering system as found in the current Workshop Manual. The Power and Ground distribution circuits can be found under section 414-01, BATTERY, MOUNTING AND CABLES.

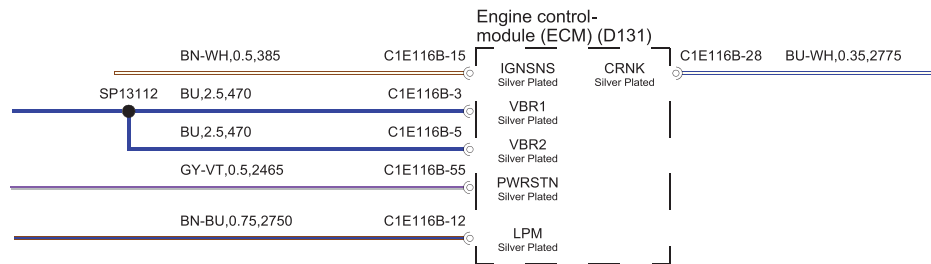
**Note:** Where circuit diagrams show more than one sub-system, the circuit will be located in the section that carries the first-named sub-system, for example: Starting and Charging will be located under section 303-06 Starting System, since 'Starting' is the first-named sub-system.

## Circuit sheet numbering

The figures in brackets to the left of the page number indicate a circuit sheet number and the total number of sheets per circuit, for example (01 / 05) represents sheet 1 of 5.

## Understanding the circuit diagrams

### Components



After each component description, a translation code is displayed in brackets, for example: Starter relay (R102), Engine control-module (ECM)(D131). The codes can be ignored.

**Note:** A dotted outline indicates that the component identified is not shown in its entirety.

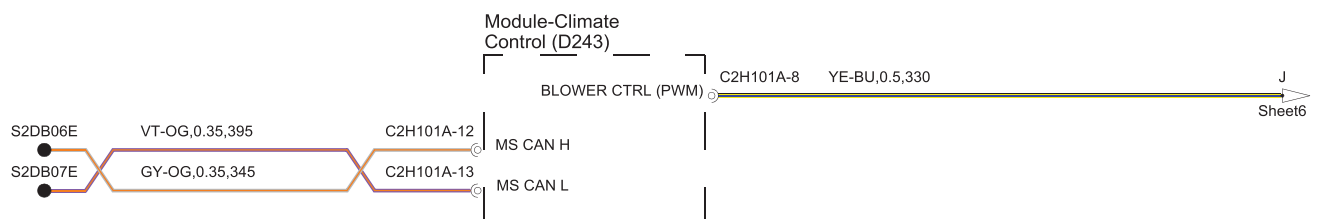
### Connectors

Connectors and header joints are identified by their corresponding connector number with a numbered suffix to indicate the pin-out detail of the wire, i.e. C1E116B-15 identifies connector 1E116B, pin number 15. Wire insulation colours are listed in a table at the end of this section. Where wires have a predominant colour with a secondary colour tracer, the main colour is identified first, i.e. WH-BK - white with a black tracer.

### Wire length

The wire length (in millimetres) is displayed after the colour and cross sectional area; for example, BU,2.5,470. In this example, the figure, 470 indicates the approximate position of the harness splice is 470mm from connector C1E116B.

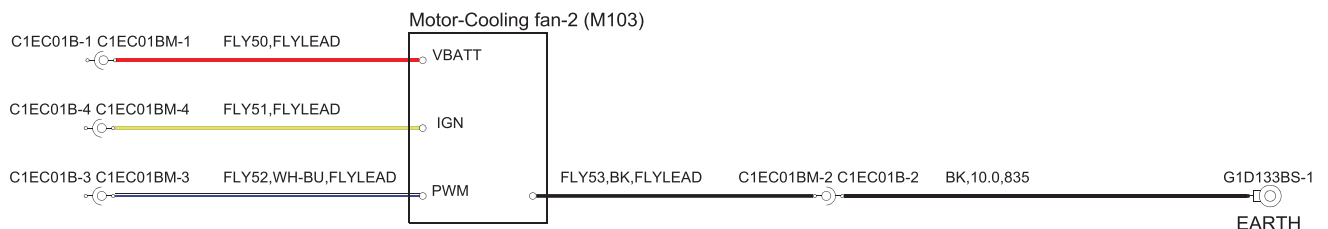
### Line Types



Crossed wires as illustrated above show an example of how a twisted pair of wires may be represented on the circuits.

The arrows illustrated above show an example of the page break symbols, identifying that the circuit continues at the corresponding letter on the sheet number indicated.

### Ground points



Ground points are identified with an eyelet symbol and a connector number, except where components are grounded through its fixings, when only the eyelet is shown.

The cup and ball symbol represents the male and female halves of the connector. Most connectors plug directly into a component but some are wired directly to the component using a 'flylead' as with C1EC01BM above.

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## *Colour Codes*

CODE	COLOUR
BK or B	BLACK
BN or N	BROWN
BU or U	BLUE
GN or G	GREEN
GY or S	GREY (slate)
OG or O	ORANGE
PK or K	PINK
RD or R	RED
VT or P	PURPLE
WH or W	WHITE
YE or Y	YELLOW