



BRA FACT FINDER Number 11

Identification of Electrical Conductors in Fixed Installations

Relevant Regulation/Standard:

IEE Wiring Regulations, BS7671:2001, Amendment No 2:2004

Note! this Fact Finder is intended as a guide only. For definitive information on the mandatory requirements refer to the IEE Wiring Regulations, BS7671:2001, Amendment No 2:2004 or visit <http://www.iee.org/Publish/WireRegs/> for further guidance.

Scope of Fact Finder

This Fact Finder is divided into two parts. Part 1 outlines the mandatory colour requirement for conductors in ac power circuits and Part 2 shows the BRA recommended colour designations for Extra Low Voltage (ELV) circuits (ac and dc) within the colour options allowed under the regulation.

Background to Colour designation Changes

For many years there had been an imbalance between the UK and other EU Member States with respect to the colour designations of fixed wiring installations. This primarily centred on the adopted colours of phase and neutral wiring. Amendment No 2:2004 to BS7671 clarifies the mandatory colour requirements for use in fixed installations. This complements the existing colour designations for appliance flexible cables, which have been used successfully in the UK since 1969, and aligns the UK with the rest of the EU.

Compliance Timescale

Amendment No 2 allows for a period of transition where both the existing and new harmonised standard may be used. The transition period terminates on the 31st March 2006, after which all new installations on site must adopt the new harmonised colours.

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PART 1 Mandatory Requirement for AC Power Circuits

Three Phase Wiring

Phase 1	L1	Brown	(previously black with red marker)
Phase 2	L2	Black	(previously black with yellow marker)
Phase 3	L3	Grey	(previously black with blue marker)
Protective Earth	PE	Green/ Yellow	

Single Phase Wiring (230V)

Live	L	Brown	(previously red)
Neutral	N	Blue	(previously black)
Protective Earth	PE	Green/ Yellow	

PART 2 BRA Recommended Colour Designations for Extra Low Voltage (ELV) Circuits

Amendment 2 allows any of the following colours to be used for ELV phase conductors:

Brown, Black, Red, Orange, Yellow, Violet, Grey, White, Pink, Turquoise.

The BRA recommends that the following convention be adhered to:

24 volt ac	Pink	(previously grey)
0 volt ac	White	
12 volt dc	Red	(previously pink)
0 volt dc	Yellow	
Controller Signals	Purple	
Volt Free	Orange	(voltage derived from external source)
Neutral, Mid-Wire or Earthed PELV conductor	Blue	

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