



AUTOMATION  
INSTRUMENTATION & CONTROL  
LABORATORY TECHNOLOGY

## **GAMBICA: Guidance on Equipment Wiring and the New Fixed Installation Cable Core Colours.**

For many years, the phases of three-phase systems have, in the UK, been identifiable by the colours RED, YELLOW, and BLUE, with BLACK used for the neutral conductor.

In single-phase systems, the colours BROWN (live) and BLUE (neutral) have been used in flexible cables, but in fixed installations RED has been used for live, and BLACK for neutral.

The need for European harmonisation has led to the following colours being adopted for fixed installation wiring:

- Single phase: BROWN (live) and BLUE (neutral) for both flexible and rigid cables.
- Three-phase: BROWN, BLACK, and GREY (live) and BLUE (neutral) for both flexible and rigid cables.

Protective conductors will continue to be coloured GREEN-AND-YELLOW.

Electrical installation work commencing after 31 March 2004 may use the new harmonised cable core colours or the old colours, but not both. Work commencing after 31 March 2006 will be required to comply with the new harmonised cable core colours and must not use the old colours. The change is introduced by Amendment No.2 (AMD 14905) to BS 7671:2001, whose Scope does not cover wiring within switchgear or wiring within control panels. Such wiring can continue to use any colour the designer might choose, where not otherwise specified, e.g. by a product standard. However, GAMBICA's Controlgear Technical Committee recommends that when practicable, power conductors are either coloured BROWN, BLACK, and GREY (phase) and BLUE (neutral), or use the colour Black for all live conductors. The colour GREEN shall not be used. In every case the conductors shall be clearly and permanently identified at their terminations by the symbols L1, L2, L3, and N.

**It is strongly recommended that colours alone are not relied on for identification of conductors.**