



SAFETY REQUIREMENTS

ADVICE SHEET

SRA

X10255

INTRODUCTION

The objective of this leaflet is to provide information to ensure that the safety of the person(s) installing or maintaining the equipment is not compromised and its location and method of installation does not endanger others, either during or after installation. Customers should be aware of the Health and Safety at Work Act 1974 (HSW 1974) and the EC "Provision and Use of Work Equipment Regulations 1992" (PUWER), both are available from the Health and Safety Executive (HSE) publications, within the UK.

INSTALLATION

CE Directives

These are European regulations, which apply to our industry. They affect the equipment emissions and immunity to Radio Frequency Interference (RFI) and various elements of safety for electrical equipment.

The European Community 'CE' Directives that mainly concern *United Automation Limited (UAL)* are, the Low Voltage Directive (**LVD**) and the Electromagnetic Compliance Directive (**EMC**). With further reference to appropriate European Harmonised Standards, the Company opted for the self certification method of assessment to address the wide range and variety of products supplied by *United Automation Limited*.

A Declaration of Conformity may be supplied with the product or supplied on request.

Torque Settings

Good working practises must be adhered to, ensuring appropriate electrical and mechanical installation. This would include the mechanical fixing of Potentiometer bushes and electrical set screw and/or pillar connections. These Electrical Connections and Mechanical Fastenings must not be over tightened. We would recommend a typical torque setting of 1 to 5Nm. For specific product information, see appropriate product data sheet, where applicable.

Cooling Requirements

United Automation Limited manufacture and use a wide range of discrete power semiconductors, which under load conditions, may generate excessive heat. We therefore recommend some form of cooling, or additional cooling for high power rated products.

The use of an additional heatsink (this could be a conductive panel) suitably attached or mounted with the unit, will help to dissipate heat away from the device(s). An alternative or additional method would be forced air-cooling (using a fan), to assist the natural convection of airflow over an existing heatsink within the unit. The product fins should be mounted in line with the forced and/or natural airflow.

The equipment's environment and its initial ambient temperature also need to be considered, as this could have an adverse effect on the overall operating conditions.

Fusing

We recommend that semiconductor, fast acting to BS88 IEC 269, type fuses or circuit breakers (Semiconductor - MCB) should be used for unit and/or device protection. The appropriate maximum load current should be known to select the required SCR fuse or MCB, but must not exceed the equipment rating. The $I^2 t$ ($A^2 s$) rating of the selected fuse, must be less than that of the equipment so as to protect the equipment's discrete device. Further appropriate fusing may be required for protection of the unit supply using standard fuse links and holders. Failure to address these requirements and the use of incorrectly selected fuses may cause the equipment to fail.

Earthing

The protective conductor terminal of the equipment must be utilised at all times and bonded to a 'good' Earth (ground). The earth bonding (strapping) leads of any combined equipment should be as short as possible and be substantial, i.e. at least rated higher than the equipment's load. For further information, refer to BS7671 (*see MAINTENANCE below*) Following these simple guidelines will ensure optimum use of any appropriate filter circuits, which may be required.

Insulation (over-voltage category) and Protection from electric shock Classification of Equipment

All equipment, unless otherwise stated, is rated to CLASS II Insulation (Over-voltage category) and CLASS I (Protection category). For specific insulation test voltage ratings, see Equipment Datasheet.

MAINTENANCE

Electronic equipment has few mechanical moving parts and is therefore, inherently, very reliable. Before any servicing is carried out, reference should be made to appropriate installation instructions, drawings and labelling which may come with the equipment. Personnel should switch off the unit supply before accessing or removing any safety cover and be aware of hazardous live parts.

We recommend that installation and maintenance of all *United Automation Limited* equipment should be done with reference to the current edition of the I.E.E. wiring regulations (BS7671), by suitably qualified/trained personnel. The regulations contain important requirements regarding safety of electrical equipment within the UK. For International Standards refer to I.E.C Directive IEC 950.



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