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# UAL

Unidirectional Battery Powered Approach Light



A battery powered, portable, unidirectional approach light providing three pre-set levels of light intensity.

### GENERAL DESCRIPTION

The UAL is based on the COREL and uses many common components, namely the polycarbonate body mouldings, lamp base, electronic control and switches. The lower section houses the batteries. The adjustable lamp housing is secured to the body assembly via a pivot arrangement which allows setting of the lamp in elevation between 2° and 8°.

### CONSTRUCTION AND FINISH

The upper and lower body sections are injection moulded from a colour impregnated high strength polycarbonate material. The design includes features to provide electromagnetic compatibility. All fittings are fully corrosion protected. The lens is manufactured from borosilicate glass. The light source is a tungsten halogen bi-pin lamp with an average life of 2000 hours. The base can be fitted with rubber as standard or optionally with a high grade 'Velcro' covering which, when used in conjunction with a fixed base plate, provides extremely good adhesion and hence stability.

### BATTERY CHARGING

The freestanding battery charger comprises a custom designed all steel enclosure, with drop down trays to enable compact storage, protection and transportation of the unit. When the trays are unlocked and lowered, charging outlets are available for recharging up to 16 UALs simultaneously. Each 'nest' location is fitted with an individual charging outlet module, providing the facility for maintaining all the UALs in a fully charged operational state. Battery charging is simple and easy to achieve by dropping the UAL onto a mating charging outlet connector located in each 'nest'.

### BATTERY STATUS INDICATION

Within a few seconds of switching on the UAL, a tricolour LED mounted between the switches indicates the status of the battery.

The indications are:

- GREEN More than 70%
- ORANGE 40% - 70%
- RED Less than 40%

This indication goes out after a short period. In addition, when the unit is operating but has less than one hour of battery capacity, the LED indicates flashing red until the unit cuts off. When the UAL is in its nest and being charged the LED will give a continuous indication of charge status as follows:

- ORANGE 0% - 70%
- GREEN 70% - 90%
- FLASHING GREEN 90% - 100%

### PHOTOMETRIC PERFORMANCE

The UAL produces white light at three pre-set levels of intensity through 20° in azimuth:

- Level 1 200 cds
- Level 2 400 cds
- Level 3 600 cds

### POWER SUPPLY

Power is supplied from two 12V 7Ah sealed lead acid batteries (SLAB). The full photometric performance can be achieved at the end of sixteen hours of operation at the maximum level of light output. The batteries are fixed in the unit and need only be removed when replacement is required.



### ENVIRONMENTAL PERFORMANCE

The UAL family of products has successfully completed a full and comprehensive schedule of environmental and type testing designed to meet rugged and exacting standards. These include:

- Climatic conditions
- Corrosion and salt resistance
- Mould growth
- Fluid contamination
- EMC
- Vibration and shock
- Reliability and maintainability

### CONTROL

The UAL can be supplied with either manual or radio control. With the radio version of the UAL, control is achieved either manually or by using the Master Switching Unit (MSU). A selector switch on the control panel of the UAL enables either mode to be selected by the operator during deployment. Radio control is via a coded VHF receiver module mounted inside the electronics enclosure. The coding of the radio signal ensures a high rejection of radio interference from other transmissions and protects the unit from unauthorised operation, either by accident or intent.

### DEPLOYMENT

The number employed and the pattern of deployment of the UALs can be set to meet particular requirements. They can be used to provide a back-up to a permanent system or for stand alone operation with regular or occasional use. Elevation of the lamp can be adjusted between 2° and 8° by setting the desired approach angle on the scale and adjusting the spirit level. Where used, aluminium base plates can be fixed to the ground using hammer screws or metal anchor pins depending upon the type of surface encountered. The base plates have a 'Velcro' covering as does the bottom of the UAL. The use of base plates allows deployment to pre-positioned bases for semi-permanent and emergency lighting configurations.

### OPTIONS

The UAL can be supplied with one of the three light levels set to provide a flashing rather than a steady mode.

### DIMENSIONAL DATA

- Height 300mm
- Width 195mm
- Length 198mm
- Weight 8kgs (including batteries)



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