

Installation Instructions for ELV/12A Range of Power Packs

Introduction

The ELV/12A range of Power Packs provides normal and/or emergency lighting via low voltage tungsten halogen lamps. The range is designed to provide maintained or non-maintained emergency lighting to 12 Volt low voltage tungsten halogen lamps. These can be used to convert low voltage downlighters or similar, to provide maintained emergency lighting either by utilising the existing lighting transformer or their own integral lighting transformer. The units use a 12 Volt battery, which gives 100% ballast lumen factor in emergency mode. The packs are available in three sizes, up to a maximum load of 100 Watts.

General Instructions

1. Because of the low voltages and high wattage lamps used with tungsten halogen power packs the cable sizes and runs must be selected to ensure that the volts drop is not excessive. In addition units using a high frequency lighting transformer need to be mounted so as the run from the transformer to the lamp (via the emergency lighting pack where appropriate) is kept short, which usually means within **2 metres**. Exceeding this cable length on HF transformers may result in reduced light output.
2. Maximum cable runs for non maintained operation, or where the lighting transformer is of the wire wound style, can be obtained from the chart below.

MAXIMUM CABLE RUN (METRES) - EMERGENCY OPERATION ONLY

Lamp Wattage	CABLE SIZE (mm ²) - VOLTS DROP (mV/A/m)				
	1.0 mm ² 44 mV/A/m	1.5 mm ² 29 mV/A/m	2.5 mm ² 18 mV/A/m	4.0 mm ² 11 mV/A/m	6.0 mm ² 7.3 mV/A/m
10 W	10.9 m	16.5 m	25.8 m	43.5 m	65.6 m
20 W	5.5 m	8.3 m	13.0 m	22.0 m	33.3 m
35 W	3.1 m	4.7 m	7.6 m	12.5 m	19.0 m
50 W	2.2 m	3.2 m	5.3 m	8.7 m	12.9 m
75W	1.4 m	2.2 m	3.5 m	5.8 m	8.7 m
100W	1.1 m	1.6 m	2.6 m	4.4 m	6.5 m

3. When wiring to multiple luminaires from one unit, it is preferable to split the circuits as near as possible to the ELV units, so as each cable is only carrying the load to one luminaire.

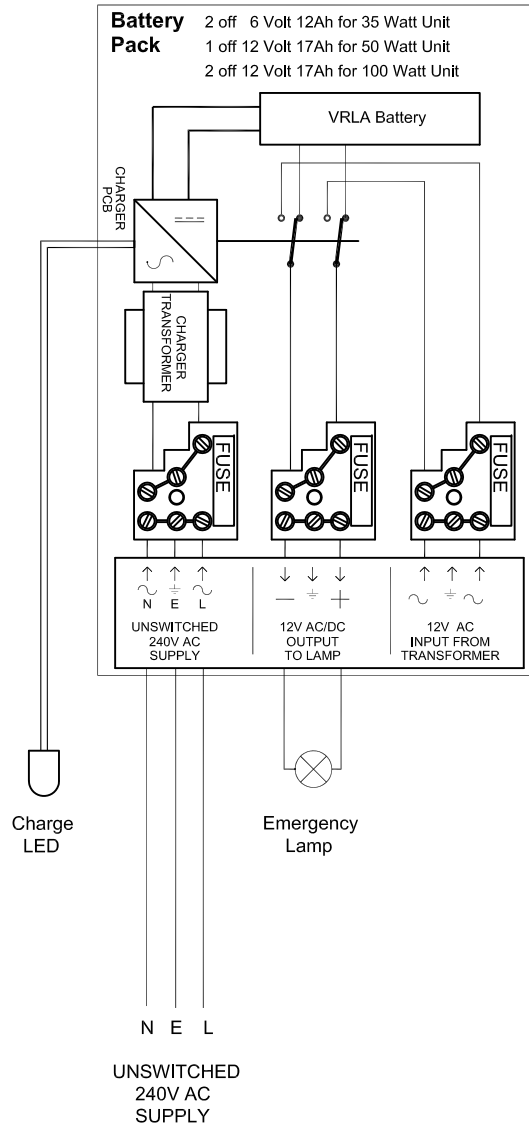
Installation Instructions

1. Position the unit close to the emergency luminaire being converted, ensuring access can be gained for battery replacements in the future. (NB all units can be mounted vertically or horizontally)
2. Connect the Unswitched (Battery Charging) 240V supply to the 'Unswitched 240V' terminals.
3. Connect the lamp(s) to the 'Output to 12V lamp' terminals. Ensure you do not exceed the maximum Wattage rating of the unit.
4. For maintained use, either connect the supply from the Remote transformer to the 12V AC input terminals for NM3 units, or connect the Switched (Lighting) 240V supply to the Switched supply terminals for M3 units. M3 units have their own inbuilt lighting transformer and do not need a remote lighting transformer.
5. Only connect the battery when the Unswitched supply is fully assured. Even though these units are protected with a Deep Discharge Protection Circuit, the VRLA (Valve Regulated Lead Acid) Batteries can be damaged by being left in an uncharged state for prolonged periods.
Sign and Date the Battery Commission Date when the battery is finally connected.
6. The LED indicator shows that the supply is healthy and the batteries are charging.
7. These ELV power packs have been tested in accordance with the relevant EMC regulations and are declared to conform to CE requirements, when installed in accordance with these installation instructions and the relevant European and British standards.

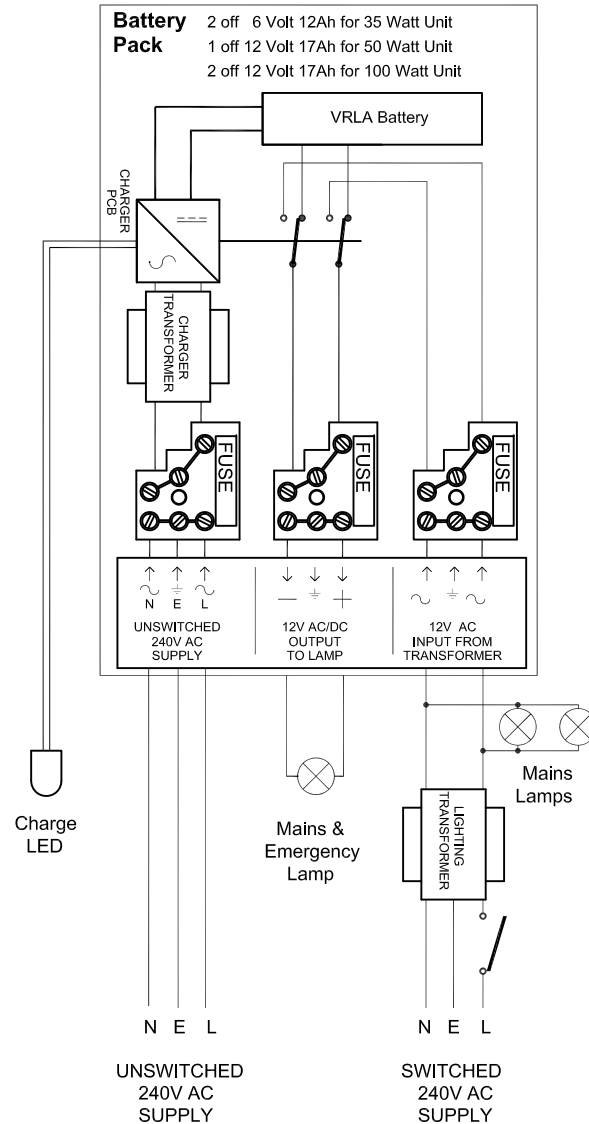
All the details and specifications shown in this leaflet are deemed correct at the time of print. The right to modify equipment, change specifications and instructions at any time, without notice, is reserved as part of Lite-Plan policy of continuous development and improvement.

ELV/12A - Typical Wiring Diagrams

ELV/12A/**/NM3 Non-Maintained



ELV/12A/**/NM3 Converted to Maintained Using Existing Transformer



ELV/12A/**/M3 Maintained

