

Installation & Wiring Instructions

DNA/1/TP40 Remote DALI Self-Test Conversion Kit

PLEASE READ THESE INSTRUCTIONS BEFORE COMMENCING INSTALLATION & LEAVE WITH END USER

Description:

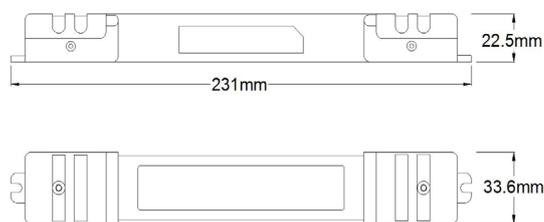
The Liteplan DNA/1/TP40 DALI self-test emergency lighting modules are designed to convert a wide range of LED types with two versions. The DNA/1/TP40 is the popular choice for converting most standard LED luminaires and arrays containing from 2 to 20 LEDs in series, whilst the DNA/1/80/TP40 extends the range by converting from 2 to 30 LED's in series.

The modules are designed to be installed by breaking into the low voltage connection between the mains LED Driver and the LEDs and allows the LEDs to be operated as normal under mains healthy conditions and operated at reduced light output in an emergency.

The module automatically adjusts the output LED current to provide the best match between the battery and the load, providing maximum illumination whilst ensuring full battery duration and are compatible with a wide range of lighting.

Specification:

Input Voltage	230-240 Volts AC 50/60 Hz
Power Rating	1.3W 12.5mA - $\lambda = 0.44$
Duration	3 hours
Ambient Temp.	0°C to + 50°C
Max Case Temperature	70°C
Max Battery Temperature	55°C
Terminal Blocks	0.5-1.5mm ² Push Fit
Battery Fuse	Internal
Battery Discharge Current	900mA ± 150mA
Discharge Voltage Limit	2.4V
Ingress Protection	IP20
Battery Pack	3.2V 3.8Ah LiFePO4
Charge Current	Dual Rate 0-250mA
Recharge Period	24 Hours
Module Size (L x W x H)	178mm x 30mm x 22.5mm
Module Fixing Centers	172mm
Module Weight	0.1Kg
Battery Weight	0.11Kg
Battery Dimensions	90mm x 28mm diameter
Insulation between Supply & Battery	Double Reinforced



Fixing Centres 224mm

DNA/1/TP40

3W to 80W LEDs that operate in Voltage Range 6 - 55 Volts
Open Circuit Voltage (U-OUT) = 60 Volts

DNA/1/80/TP40

3W to 80W LEDs that operate in Voltage Range 15 - 80 Volts
Open Circuit Voltage (U-OUT) = 90 Volts

Warning

Avoid running the LED mains driver and emergency pack without the load connected. Failure to do so may result in damage to the LED array

Important

It is recommended that the module is installed by a competent person ensuring the installation complies with the necessary standards. Liteplan accept no responsibility for injury, damage or loss, which may arise as a result of incorrect installation, operation or maintenance.

The conversion requires an unswitched supply for charging the battery and a switched supply if the unit is being used for maintained operation.

ISOLATE BOTH MAINS SUPPLIES AND DISCONNECT THE BATTERY BEFORE INSTALLATION OR MAINTENANCE.

Installation

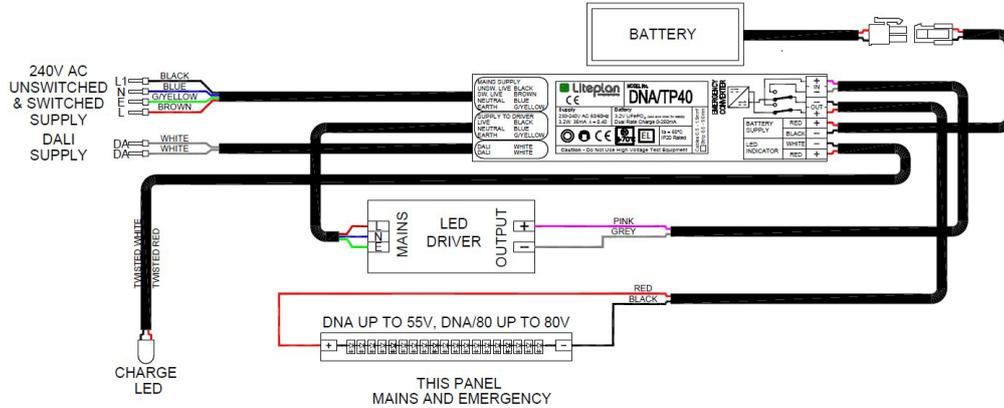
When converting a luminaire observe the following points:-

1. Ensure that the module and battery pack will operate within their temperature ratings at their chosen location.
2. Ensure that the interconnecting loom is kept as short as possible.
3. Ensure that the Permanent Live & Switched Live feeds are connected correctly.
4. Arrange the wiring to avoid running the 240 Volt cables next to the modules output to the LED to obtain the best EMC results.
5. Requirements for 'F' markings must be observed.
6. Identify clearly the NEW Un-switched supply.
7. Ensure the LED Charge Indicator is clearly visible in every day use.
8. If fitted within a metal enclosure, connect earth terminal to metal gear tray for improved EMC.
9. This module is not intended for use in luminaires for high-risk task area lighting.
10. Ensure that DALI cables are run away from mains voltage cables.
11. This module is protected against battery polarity reversal.

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Typical Conversion Wiring Diagram



Device Status Indicator:

Green Solid		Battery connected & charging	Red Fast Flash	2 x 0.5 sec On, 2.5 sec Off	Lamp Fault
Green Flash	2.0 sec On, 0.2 sec Off	48h Pre-Commissioning	Red Slow Flash	0.5 sec On, 3.5 sec Off	Battery Fault
Green Flash	0.2 sec On, 2.0 sec Off	Function Test in progress	Red / Green Alternating		Identification Mode
Green Flash	0.2 sec On, 2.0 sec Off	Duration Test in progress	Red & Green Off		In Emergency Mode

Luminaire Ref/Location		In Case of difficulty, contact the Installation Engineers:- Tel:									
Full Recharge Time 24 Hours			Duration 3 Hours				Lamp Type - LED				
ROUTINE TEST RECORD											
	Year 1		Year 2		Year 3		Year 4		Year 5		
Monthly Test	Signed	Date	Signed	Date	Signed	Date	Signed	Date	Signed	Date	
Functional											
Functional											
Functional											
Functional											
Functional											
Functional											
Functional											
Functional											
Functional											
Functional											
Three Hour											