

INSTRUCTION MANUAL

**LED EMERGENCY LIGHTING EQUIPMENT
COLD PACK LED AC + EMERGENCY DRIVER
UNIVERSAL INPUT
SELV OUTPUT**

**IMPORTANT SAFEGUARDS**

WHEN USING ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED, INCLUDING THE FOLLOWING

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. To prevent electric shock, switch off the mains power supply until installation is complete and AC power is supplied to this product.
2. This product requires an un-switched AC power supply of 100-277V, 50/60Hz.
3. Make sure all connections are in accordance with the National or Canadian Electrical code and any local regulations.
4. To reduce the risk of electrical shock, disconnect both normal and emergency power supplies and the connectors of this product before servicing.
5. The product is UL Listed for field installation, and it is intended for ordinary locations and for permanent installation into one or more Listed emergency luminaires.
6. Apply this product to the corresponding LED loads according to the characteristics and inform the factory of the preset current output for the AC driver function.
7. The product can provide constant output for minimum 90 minutes illumination under the emergency mode.
8. Use this product in -40°C minimum, 50°C maximum ambient temperatures (Ta).
9. The product is suitable for use in dry or damp locations. Do not mount near gas or electric heaters.
10. Do not attempt to service the batteries. A sealed, non-maintenance battery is used that is not field replaceable. Contact the manufacturer for information or service.
11. This product should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized personnel.
12. Intended for installation within the enclosure of equipment Listed for permanent installation.
13. Do not use this product for other than intended use. Do not use outdoors.
14. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition and void warranty.
15. Installation and service should be performed by qualified service personnel.



**THIS PRODUCT CONTAINS A RECHARGEABLE LI-ION BATTERY.
THE BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY.**

INSTALLATION



CAUTION: MAKE CERTAIN THE AC POWER IS OFF UNTIL THE INSTALLATION IS COMPLETE.

1. SPECIFICATION OF 184502/3 SERIES MODEL

See the 184502/3 MODEL SPECIFICATION below for the model selected.

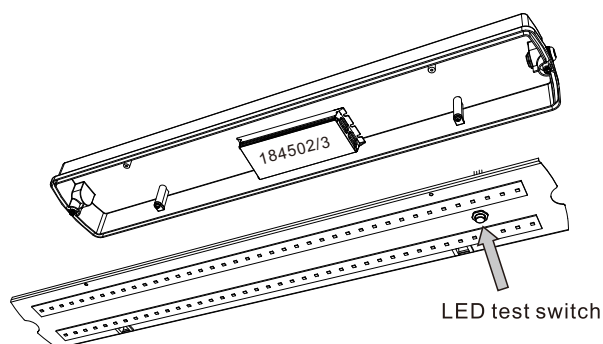
184502/3 MODEL SPECIFICATION

MODEL	NORMAL				EMERGENCY
	Input Max. Power			OUTPUT	OUTPUT
	Lighting	Charging	Heating		
184502	14W	2W	8W	22-45V DC / 150-250mA	22-45V DC / 6 W
184503	33W	2W	8W	22-45V DC / 250-600mA	

2. INSTALLING THE 184502/3

The 184502/3 should be installed within the enclosure of Listed luminaire.

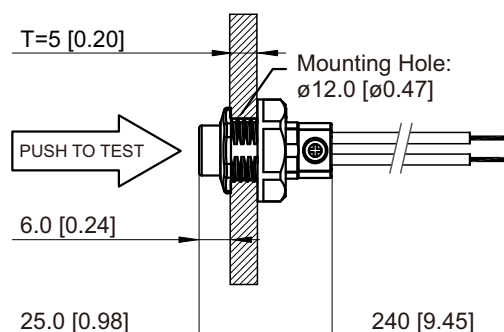
The Max. mounting height of the emergency luminaire with 184502: 20.74ft (6.3m),
184503: 21.3ft (6.5m). for other luminaires, judge according to the action situation.



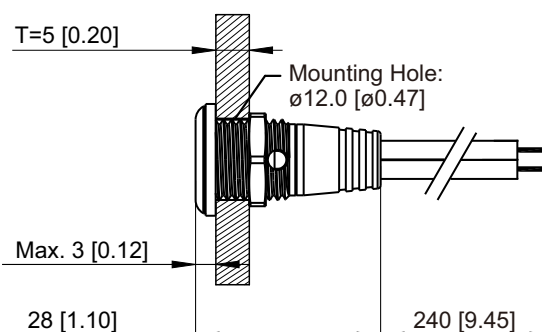
3. INSTALLING THE LED TEST SWITCH (LTS)

Select a convenient location for the LTS so that it can be seen after installation. Drill a 1/2"(12 mm) hole for mounting the LTS. Connect the wires from LTS to the 184502/3 model according to the wiring diagram on page 3.

LTS-IP20



LTS-IP66



All dimensions are typical

Dimension unit: mm [inch]
Tolerance: ± 1 [0.04]

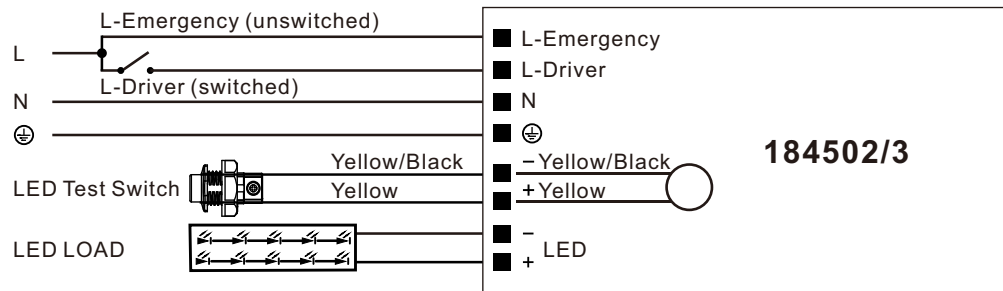
WIRING / DIMENSION

WIRING

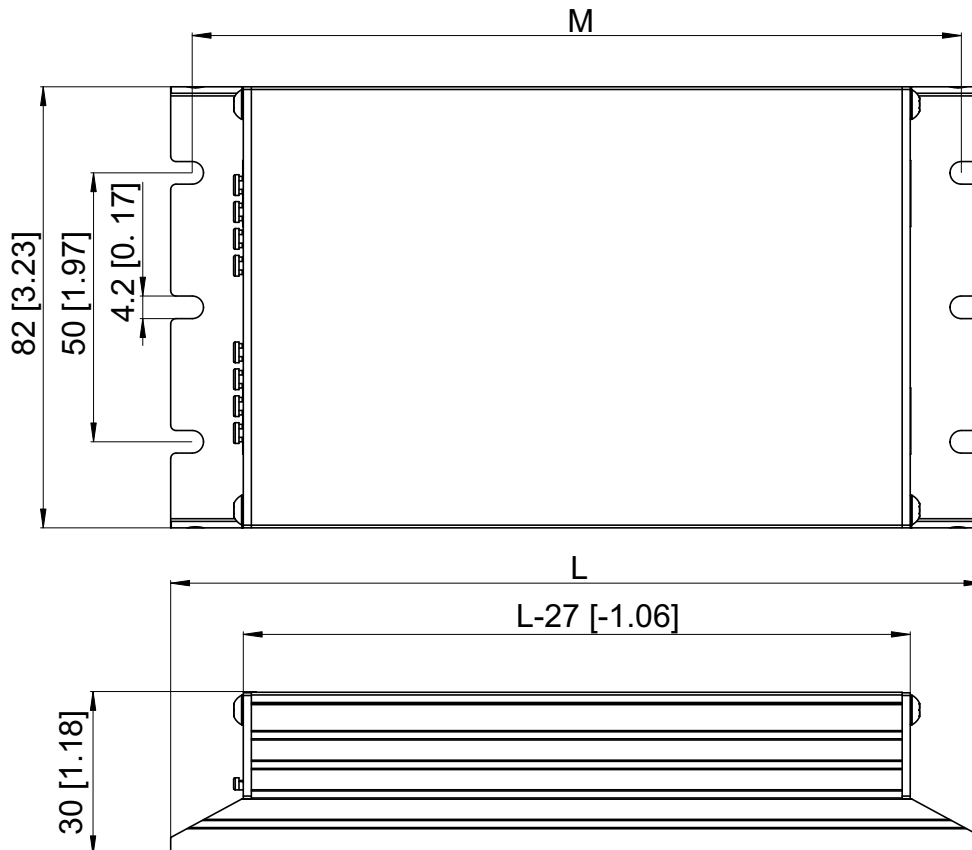


CAUTION: MAKE CERTAIN THE AC POWER IS OFF UNTIL THE INSTALLATION IS COMPLETE.

1. The 184502/3 requires an unswitched AC power supply of 100-277 volt, 50/60Hz.
2. Refer to the wiring diagrams below for wiring. Consult the factory for other wiring diagrams.



DIMENSION



Dimension unit: mm [inch]

Item No.	L mm [inch]	M (Mounting) mm [inch]	W mm [inch]	H mm [inch]
184502	134 [5.28]	124 [4.88]	82 [3.23]	30 [1.18]
184503	154 [6.06]	144 [5.67]	82 [3.23]	30 [1.18]

OPERATION

When AC power is applied, the LED test switch is illuminated, indicating that the batteries are being charged. When AC power fails, the 184502/3 automatically switches to emergency power, operating the lighting load at rated emergency power. During power failure, the LED test switch will be off. When the AC power is restored, the emergency 184502/3 switches the system back to normal mode of operation and resumes battery charging. The minimum emergency operation time is 90 minutes. A short term discharge test may be conducted after the 184502/3 has been charging for 1 hour. The charging time for a full discharge is 24 hours.

TESTING AND MAINTENANCE

The following Periodic testing is recommended to ensure the system is working correctly.

1. Visually inspect the LED test switch (LTS) monthly. It should be illuminated when AC power is applied.
2. Conduct a 60-second discharge test by switching off the emergency breaker every month. The LTS will be off.
3. Conduct a 90-minute discharge test per year.

AUTO TEST

The 184502/3 has an Auto Test feature which saves cost by reducing the need for manual testing.

1. Initial Auto Test

When the system is connected properly and powered on, the 184502/3 will perform an initial Auto Test. If any abnormal conditions exist, the LTS will blink quickly. Once the abnormal condition is corrected, the LTS will function correctly.

2. Preprogrammed Scheduled Auto Test

- a) The unit will conduct the first Monthly Auto Test after up to 7 days after initial power on.

Then monthly tests will be performed every 30 days.

- b) Annual Auto test will occur every 52 weeks after initial power on.

- Monthly Auto Test

The Monthly Auto Test shall be executed every 30 days, and will test; Normal to emergency transfer function, emergency, charging and discharging conditions are normal. Monthly test time is approximately 60 seconds.

- Annual Auto Test

Annual Auto Test will occur every 52 weeks after the initial 24 hours full charge, and will test; Proper initial battery voltage, 90-minute emergency operation and acceptable battery voltage at the end of the full discharge.

If the Auto Test is interrupted by a power failure, a full 90-minute Auto Test will occur again 24 hours after the power is restored. If the power failure causes the battery to fully discharge, the product will restart the Initial Auto Test and Preprogrammed Scheduled Auto Test.

MANUAL TEST

- Press the LTS one time to simulate emergency mode.
- Press the LTS 2 times continuously within 3 seconds to force a monthly test. After the test is completed, the next (30-day) monthly test will count from this date.
- Press the LTS 3 times continuously within 3 seconds to force a 90-minute annual test. After the test is completed, the next (52-week) annual test will count from this date.
- During any manual test, press and hold the LTS for greater than 3 seconds to terminate a manual test. The Preprogrammed Scheduled Auto Test time will not change.

LED TEST SWITCH CONDITIONS

- LTS Slow Blinking: Normal Charging
- LTS On: Battery Fully Charged - Normal Condition
- LTS Off: Power Failure
- LTS Gradual Change: In Testing Mode
- LTS Quickly Blinking: Abnormal Condition - Corrective Action Required