

184804

INSTRUCTION MANUAL

PARALLELABLE MODULAR INVERTER

PURE SINUSOIDAL AC OUTPUT

OUTPUT VOLTAGE AUTO SETTING TO INPUT VOLTAGE

PATENTED APD TECHNOLOGY - AUTO PRESET DIMMING THE

CONNECTED LOAD IN EMERGENCY MODE

AUTO DIMMING (0-10V) OF CONNECTED LOAD UP TO 4000W

MODULAR DESIGN, FLEXIBLY PARALLELABLE COMBINATION FROM 1 TO 5 MODULES



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 input power is supplied to this product.
2. This product requires an unswitched AC power supply of 120-277V, 50/60Hz.
3. Ensure all connections are in accordance with National Electrical Code or Canadian Electrical Code and all local regulations.
4. To reduce the risk of electrical shock, disconnect both normal power, emergency power supplies and unit connector of this product before servicing.
5. For emergency operation of LED, incandescent, fluorescent fixtures and screw-base lamps.
6. Use this product in 0°C minimum, 50°C maximum ambient temperatures (Ta).
7. Use with grounded, Listed, dry or damp location rated fixtures and the case should be grounded.
8. 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.
9. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition and void warranty.
10. Do not use this product for other than intended use.
11. Installation and service should be performed by qualified service personnel.
12. This product should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.



THIS PRODUCT CONTAINS A RECHARGEABLE LITHIUM IRON PHOSPHATE BATTERY.
THE BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY.

SAVE THESE INSTRUCTIONS

INSTALLATION



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

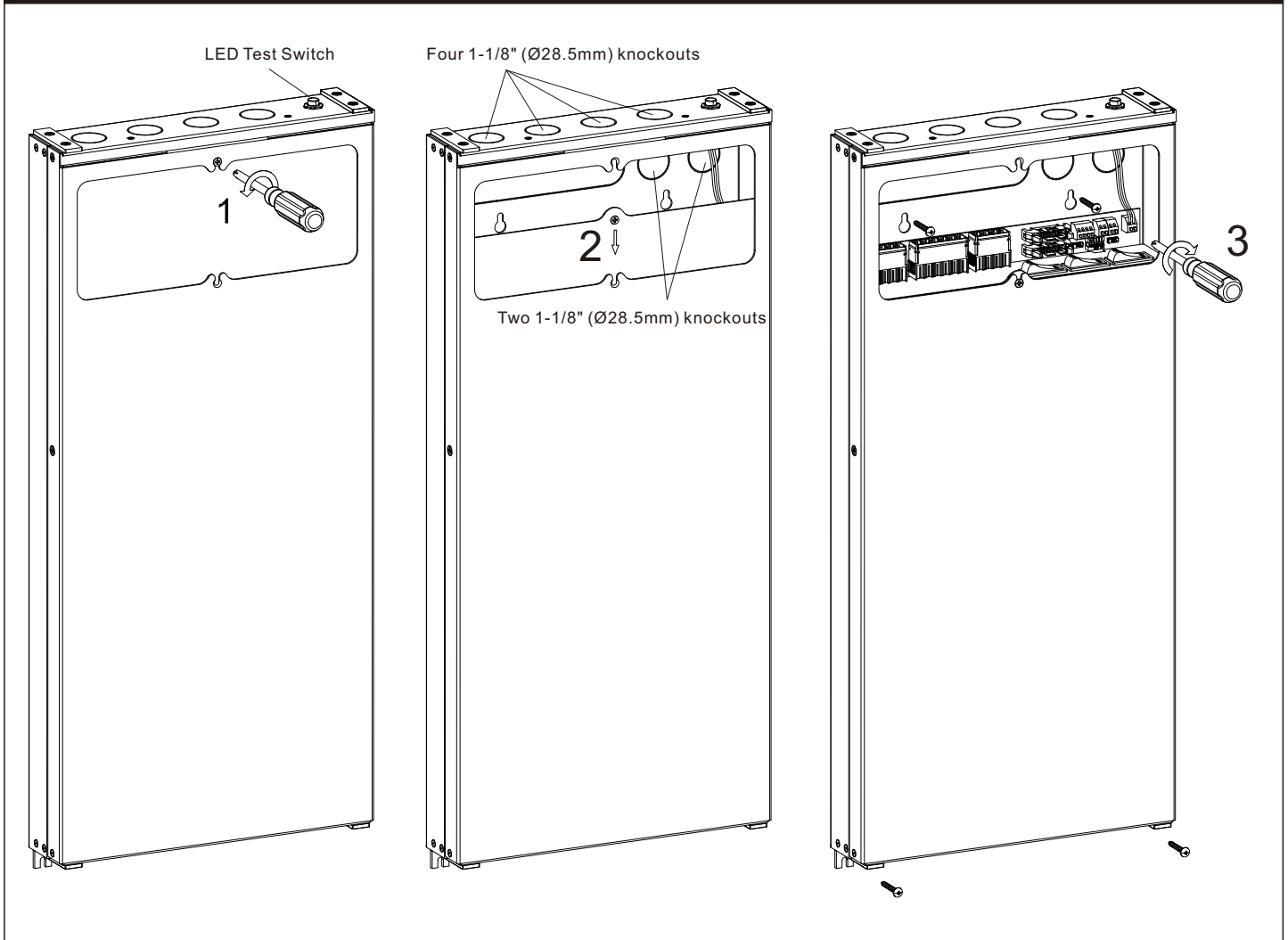
1. SPECIFICATION OF 184804

Voltage	
Input	Output
120V/60Hz	120V/60Hz
230V/50Hz	230V/50Hz
277V/60Hz	277V/60Hz

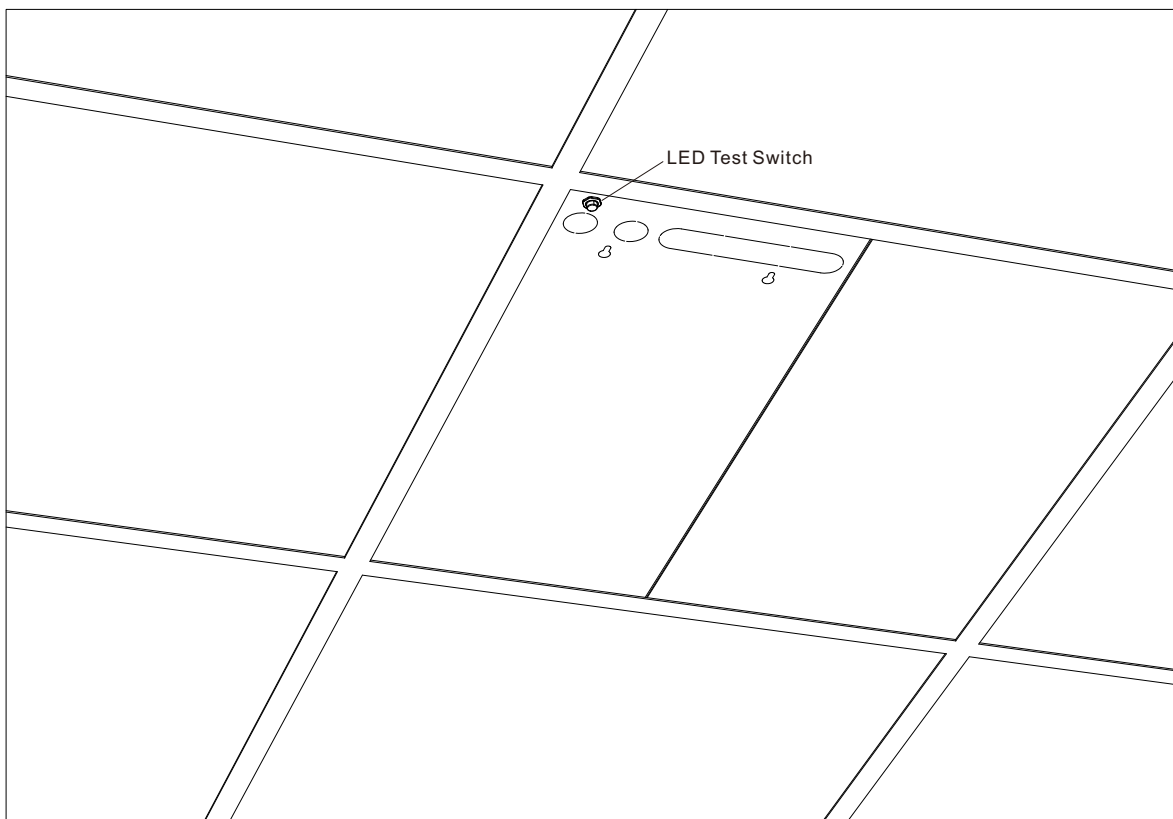
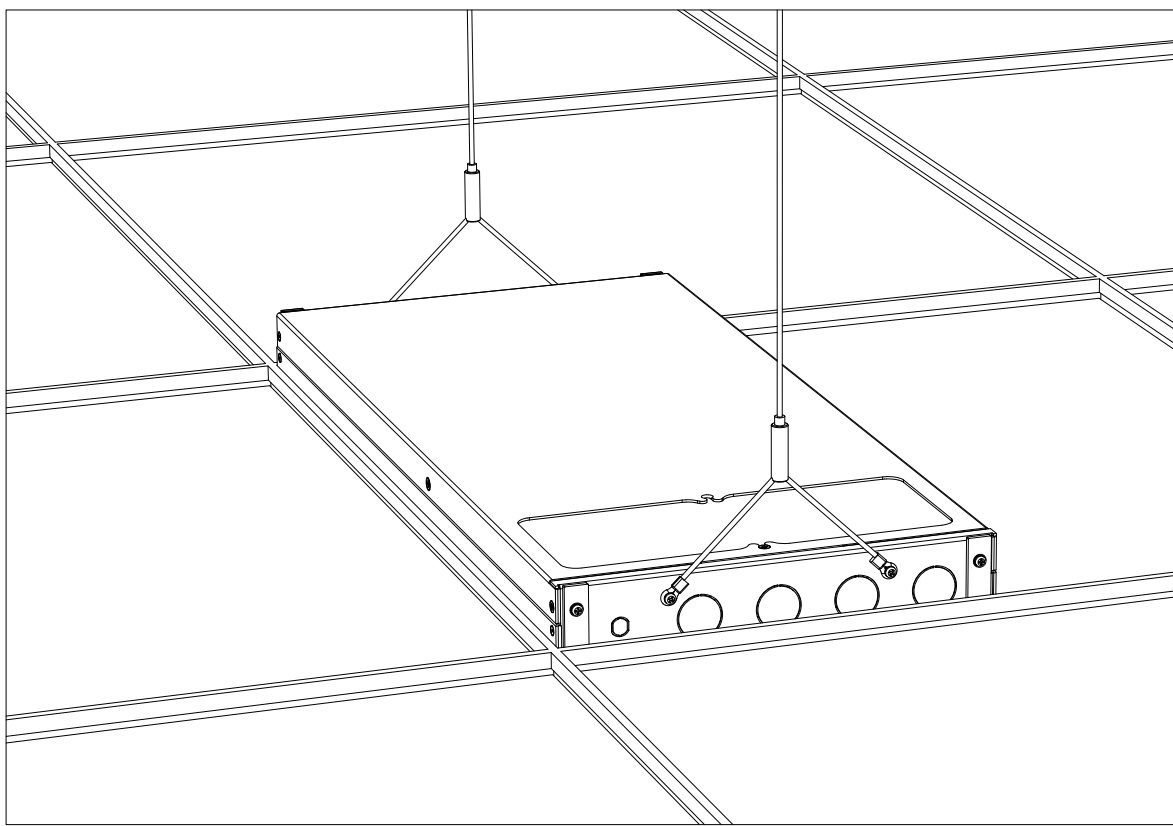
Max. Output power	Quantity of 184804
400W	1 (Single)
800W	2 (Parallelable)
1200W	3 (Parallelable)
1600W	4 (Parallelable)
2000W	5 (Parallelable)

2. INSTALLING THE 184804

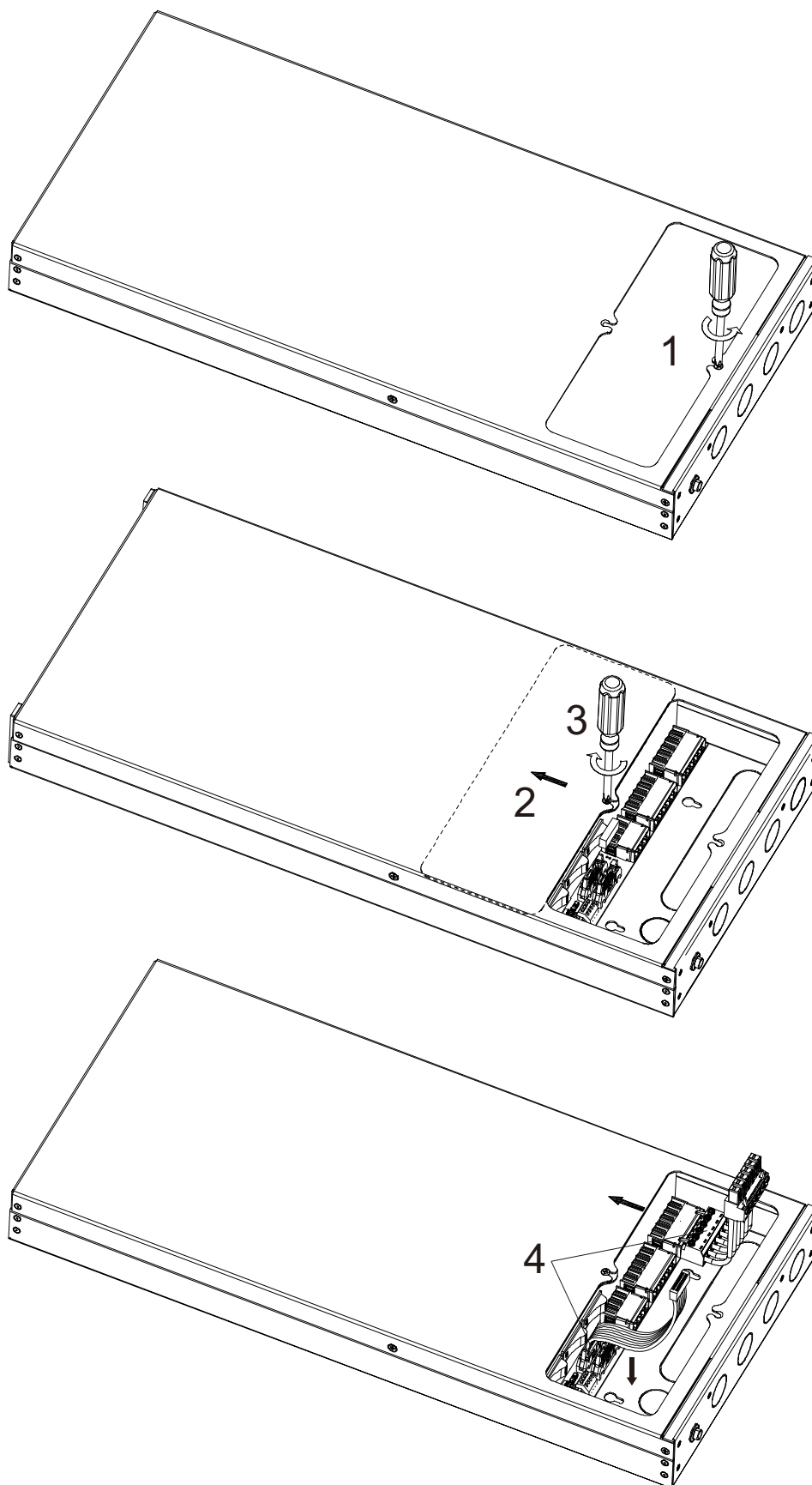
SURFACE MOUNTING



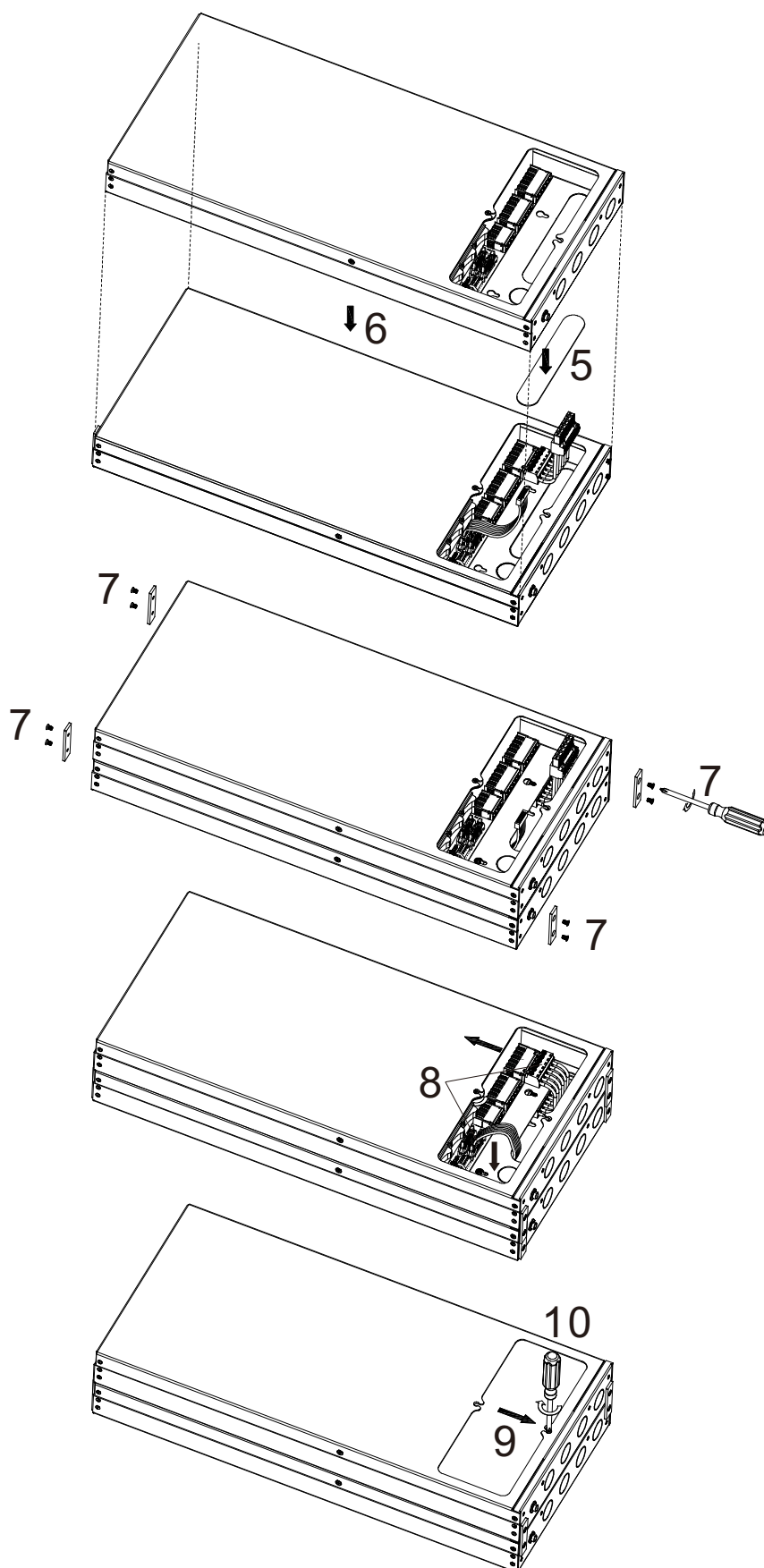
CEILING GRID MOUNTING



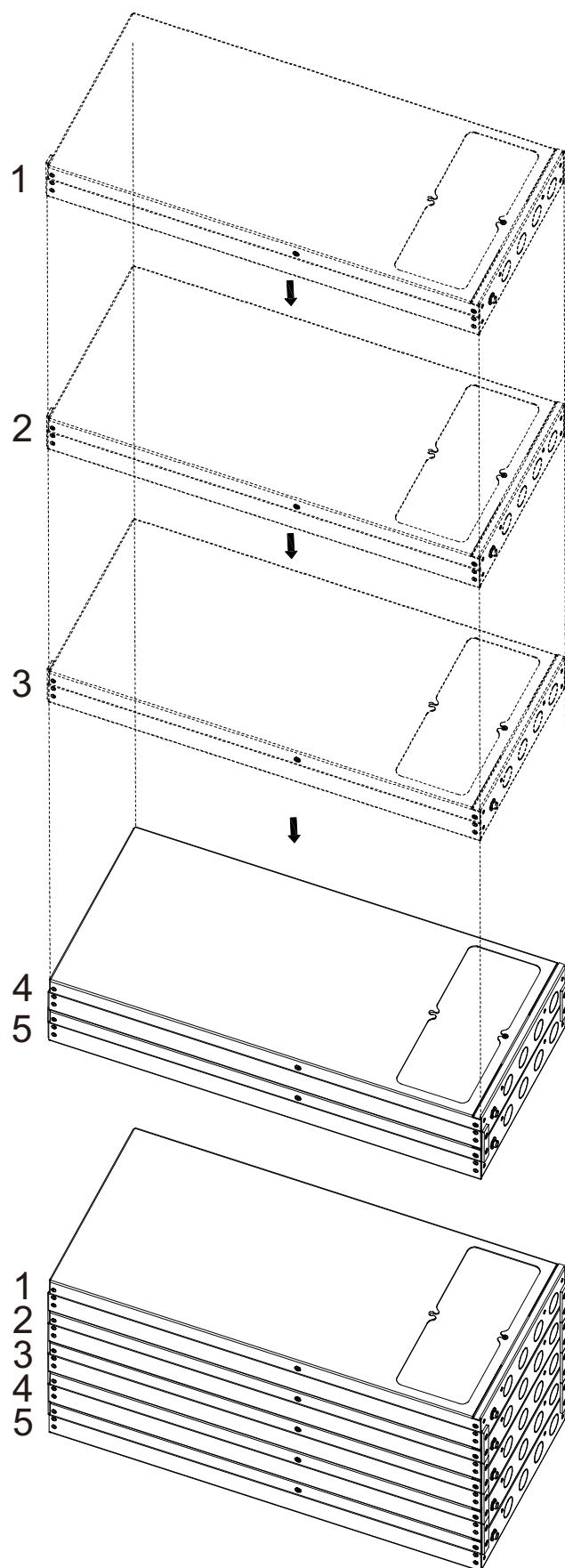
PARALLELEABLE MOUNTING 1/3



PARALLELEABLE MOUNTING 2/3



PARALLELELE MOUNTING 3/3



WIRING



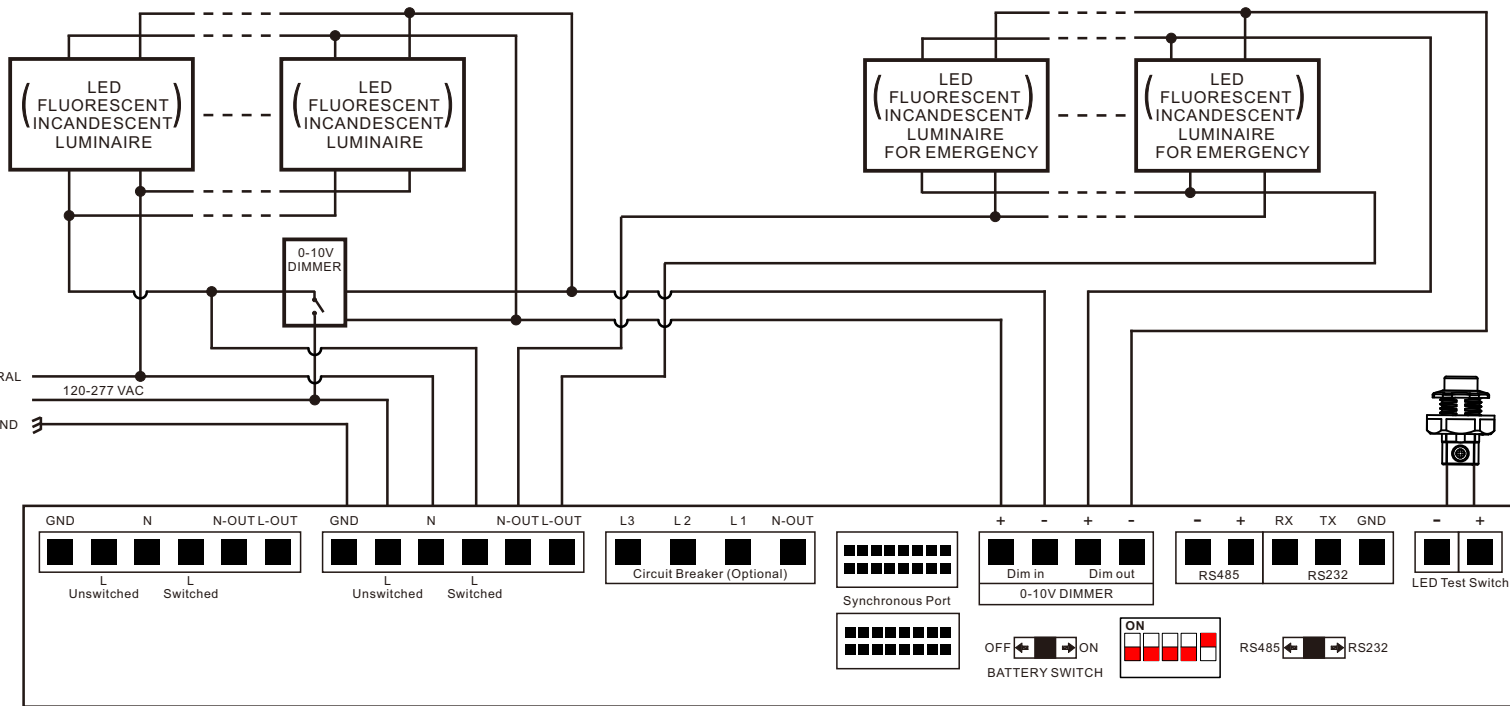
CAUTION: DO NOT SWITCH ON THE BATTERY SWITCH UNTIL INSTALLATION IS COMPLETE.

1. The 184804 requires an unswitched AC power supply of 120-277 volt, 50/60Hz.
2. Refer to the wiring diagrams below. Make connections in the following order.
3. Consult the factory for other wiring diagrams.

SINGLE 184804 FOR 0-10V DIMMABLE EMERGENCY LIGHTING SYSTEM

MAX. DIMMABLE LOAD = 2000W @ 120V
4000W @ 277V

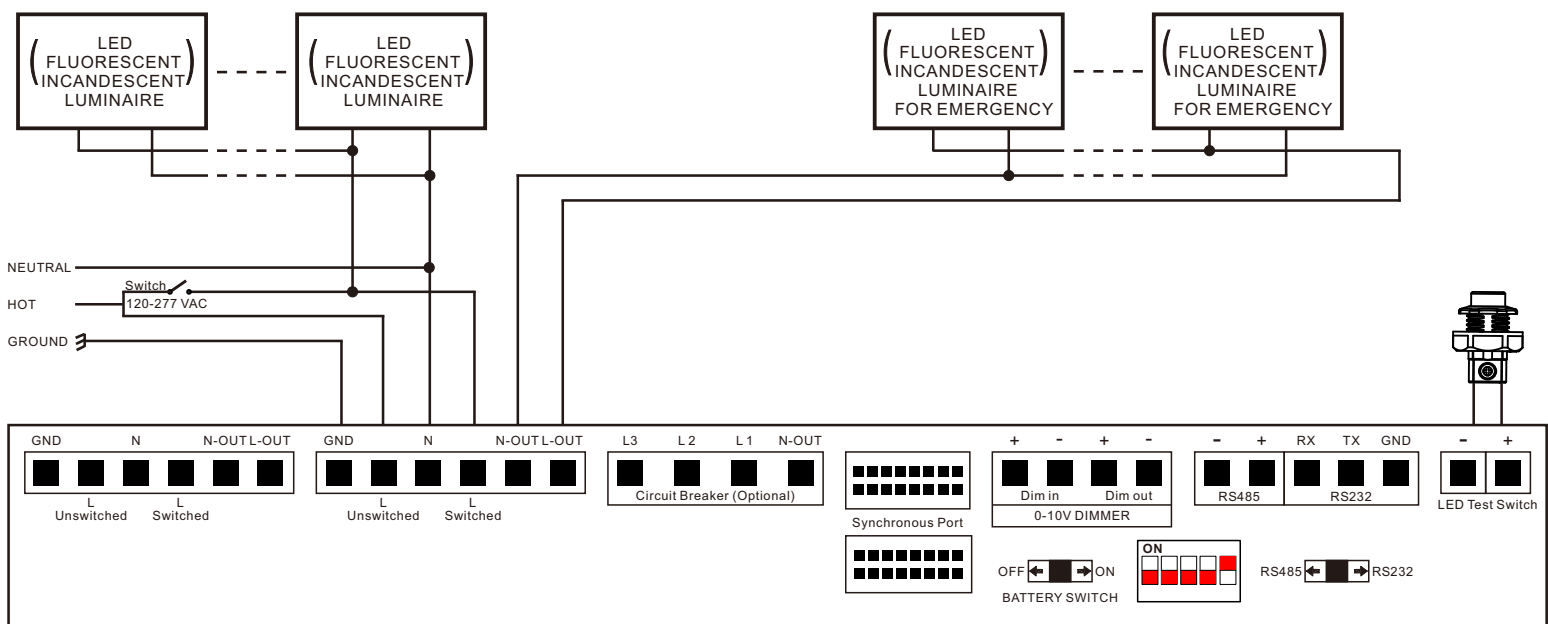
ANY QUANTITY



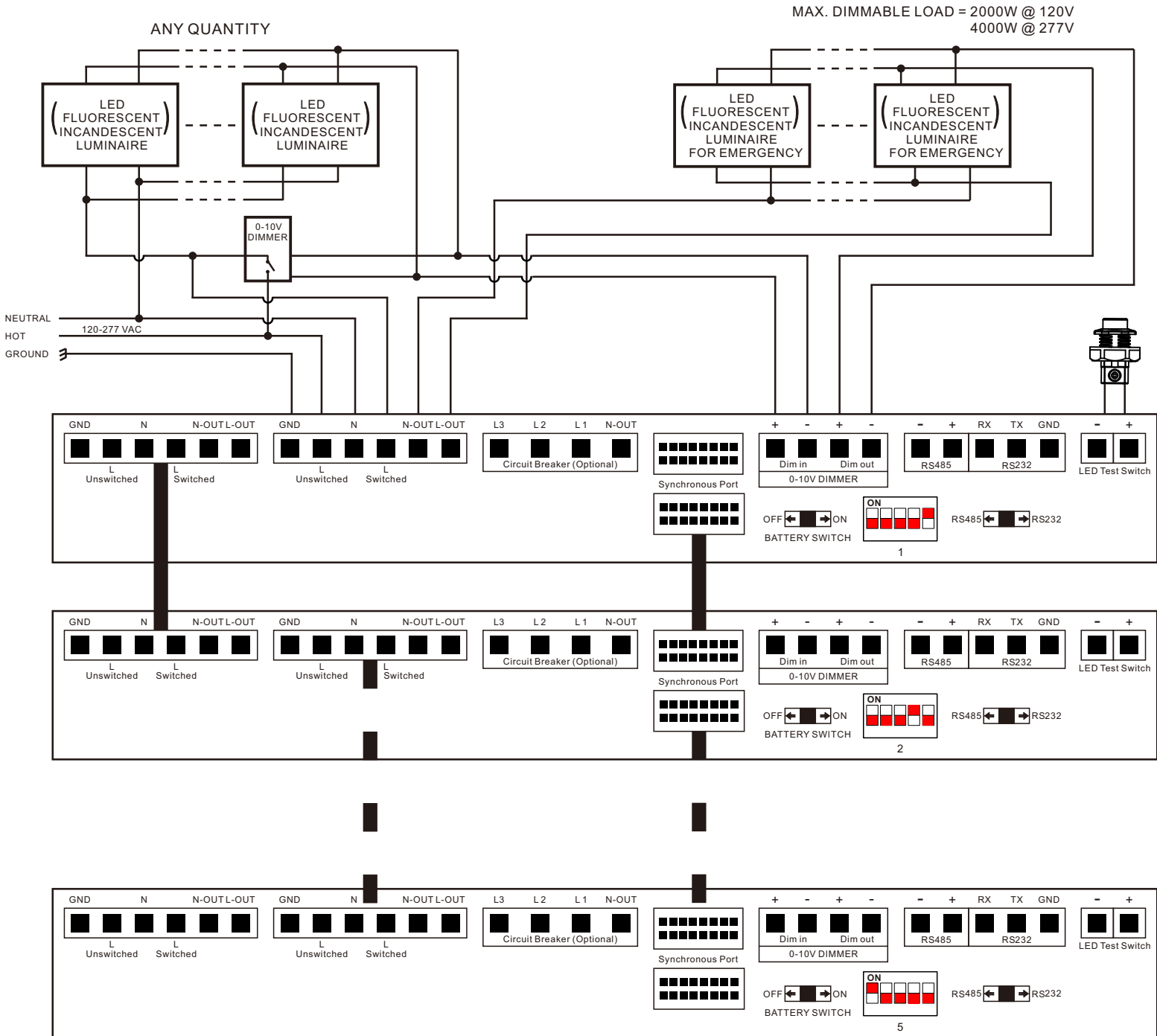
SINGLE 184804 FOR NON-DIMMABLE EMERGENCY LIGHTING SYSTEM

MAX. LOAD = 400W

ANY QUANTITY



PARALLELEABLE 184804 FOR 0-10V DIMMABLE EMERGENCY LIGHTING SYSTEM

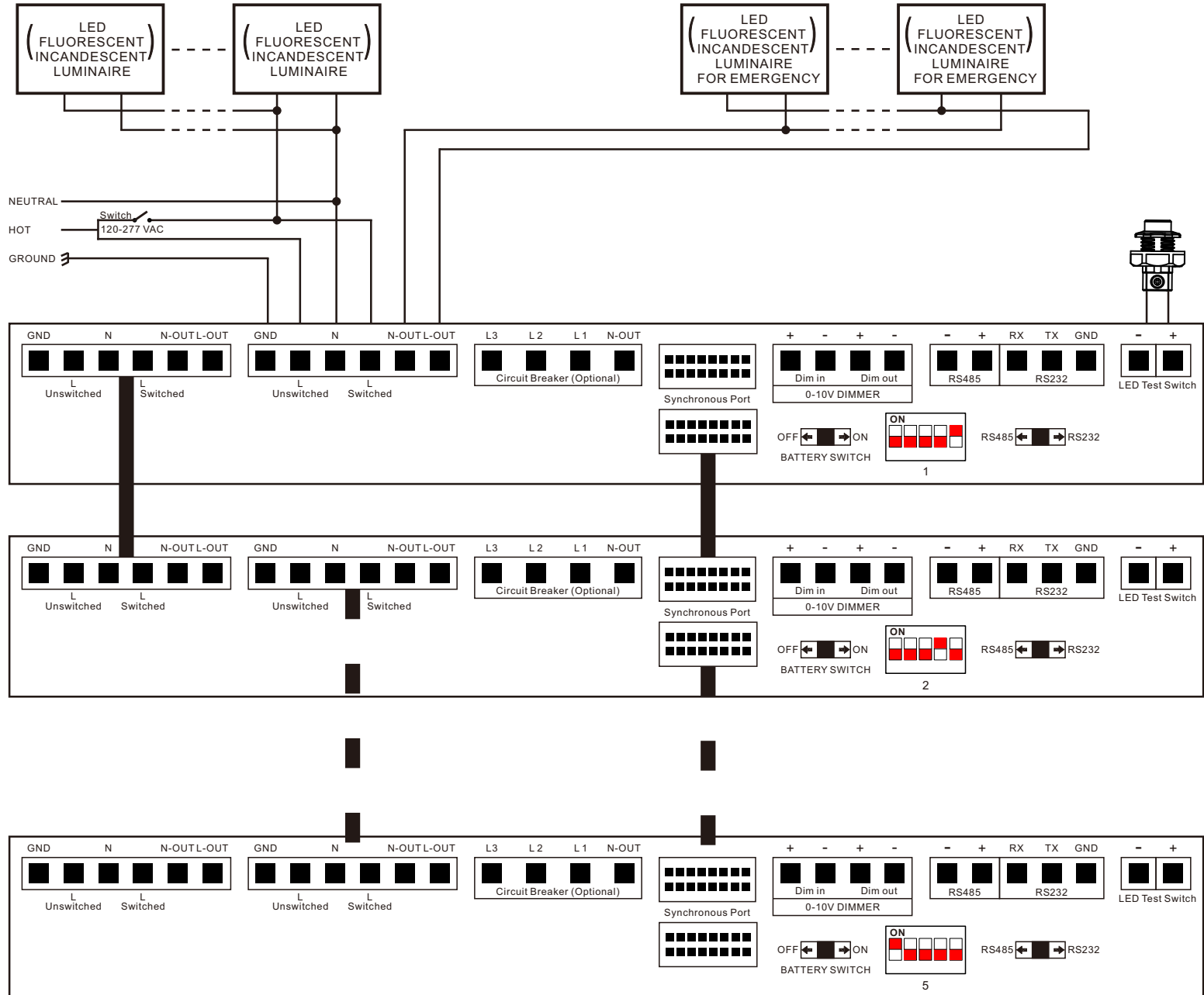


WIRING

PARALLELEABLE 184804 FOR NON-DIMMABLE EMERGENCY LIGHTING SYSTEM

MAX. LOAD = 800W (2x184804)
 =1200W (3x184804)
 =1600W (4x184804)
 =2000W (5x184804)

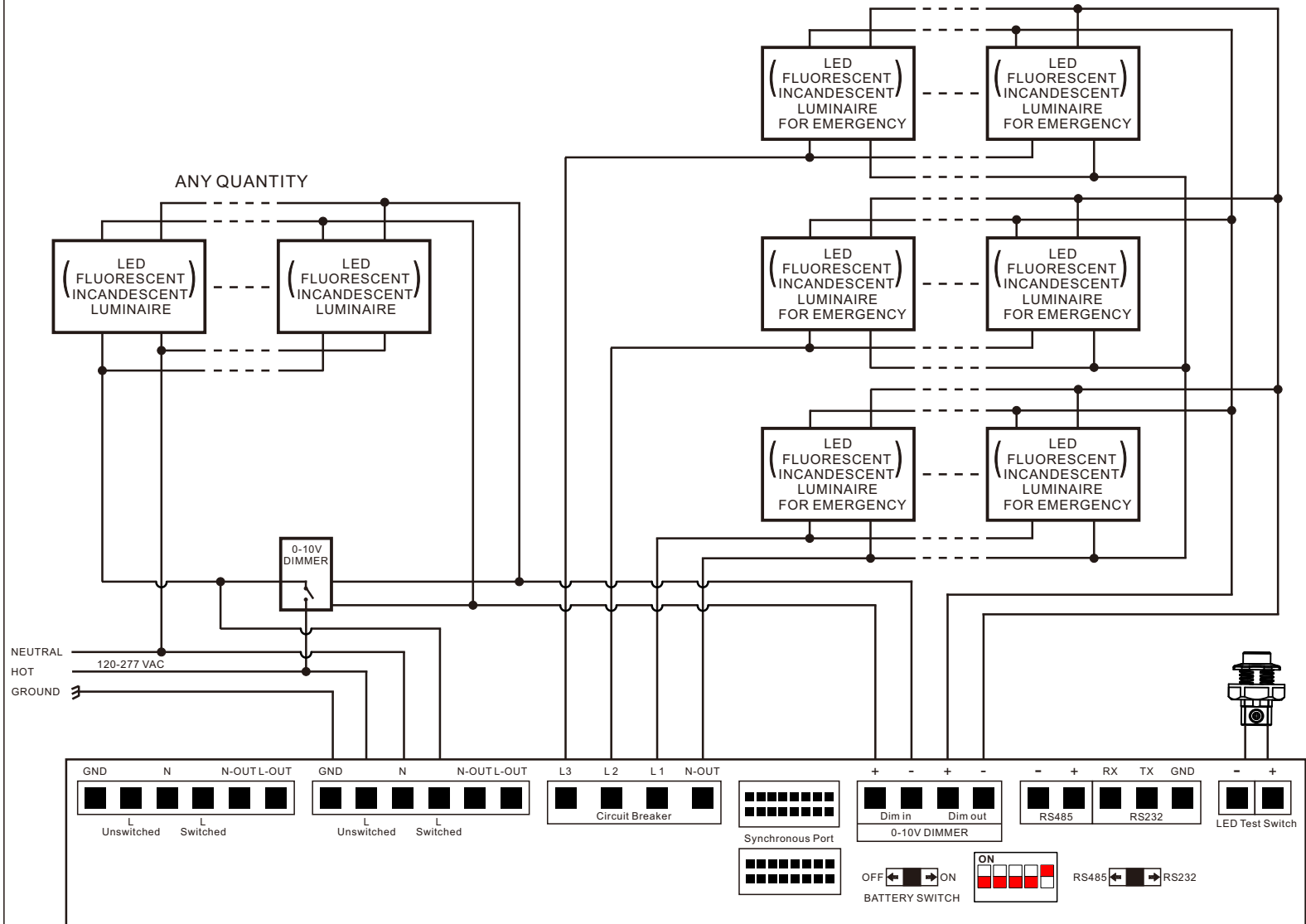
ANY QUANTITY



WIRING

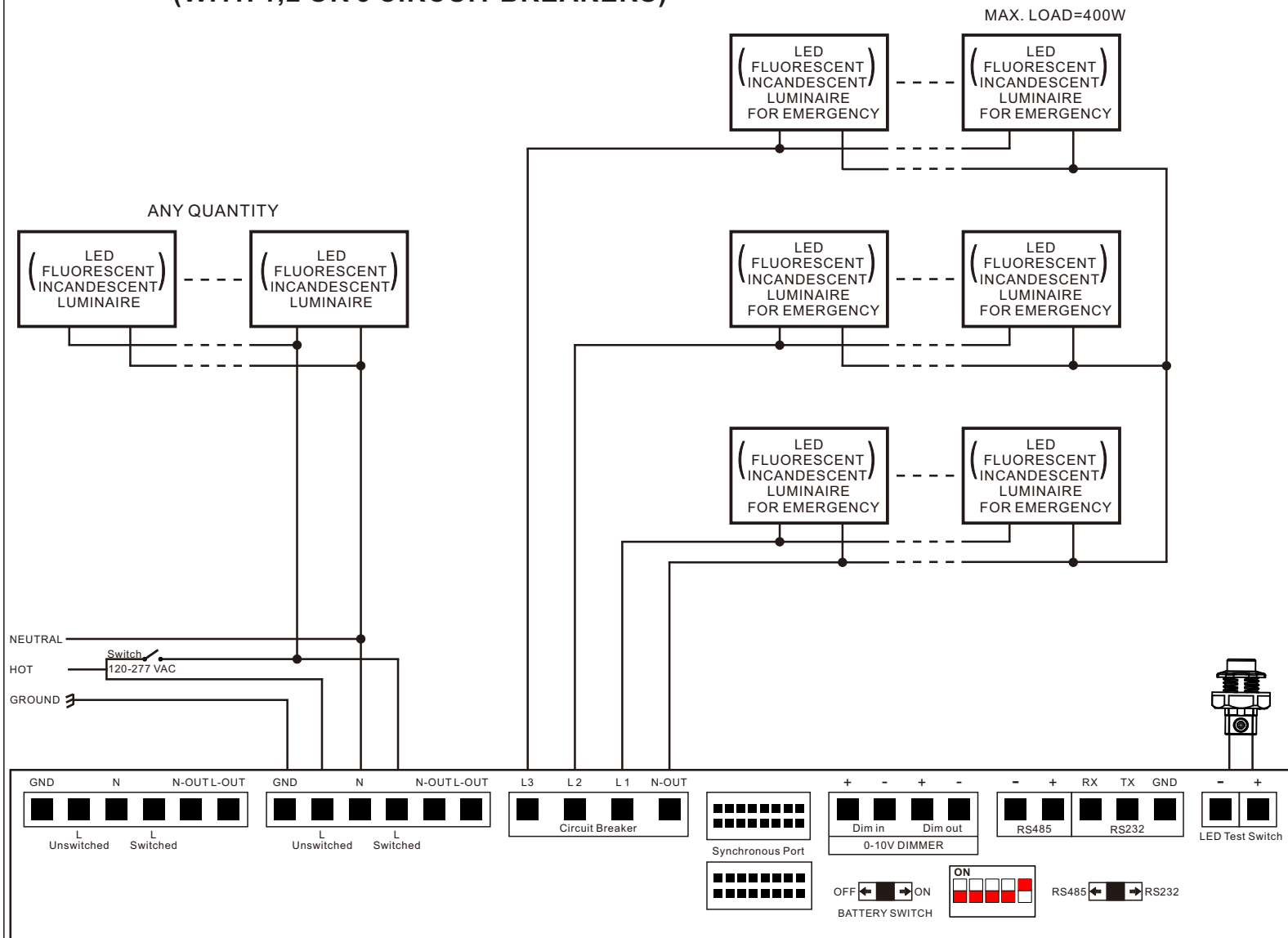
SINGLE 184804 FOR 0-10V DIMMABLE EMERGENCY LIGHTING SYSTEM (WITH 1,2 OR 3 CIRCUIT BREAKERS)

MAX. DIMMABLE LOAD = 2000W @ 120V
4000W @ 277V



WIRING

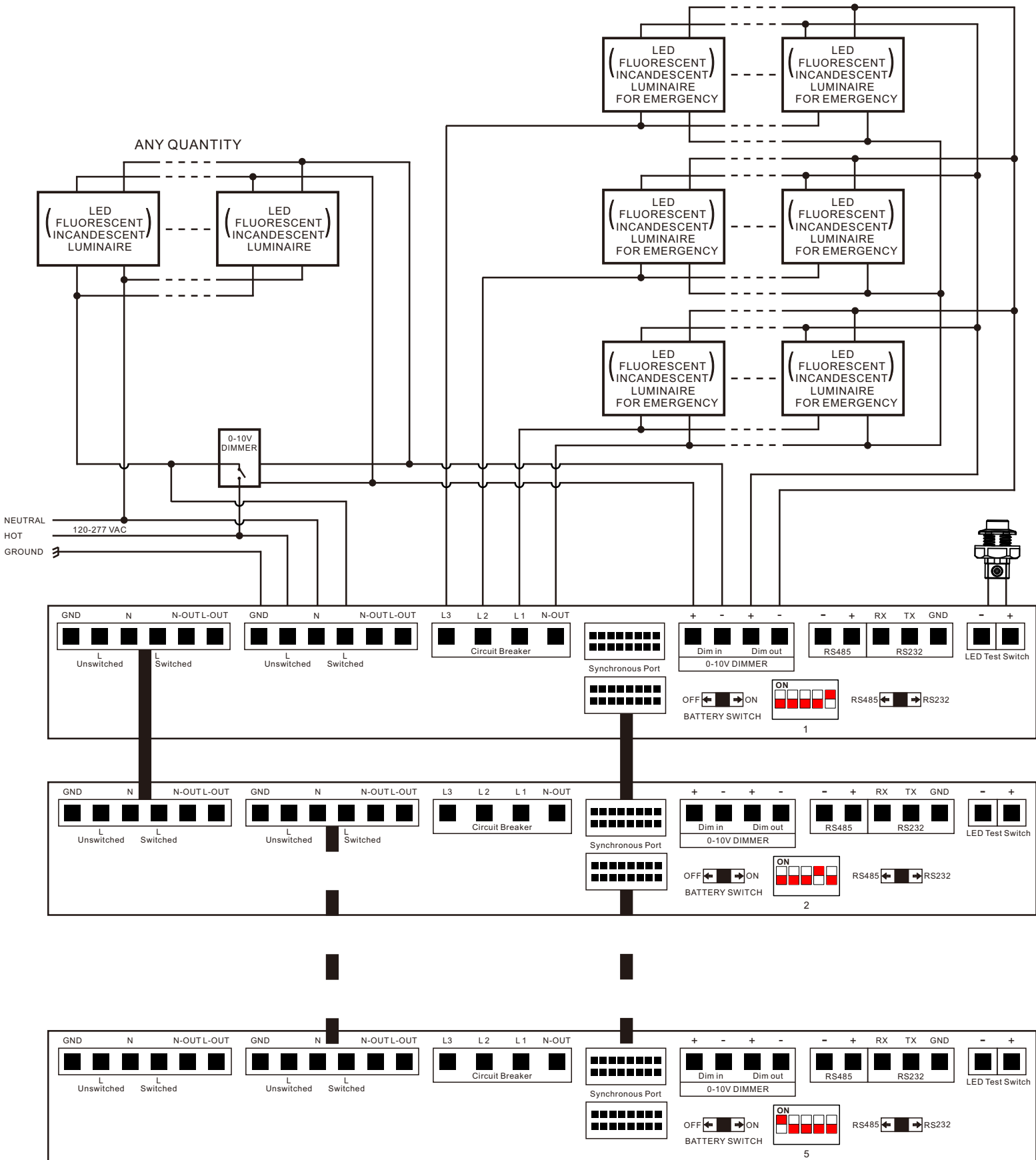
SINGLE 184804 FOR NON-DIMMABLE EMERGENCY LIGHTING SYSTEM (WITH 1,2 OR 3 CIRCUIT BREAKERS)



WIRING

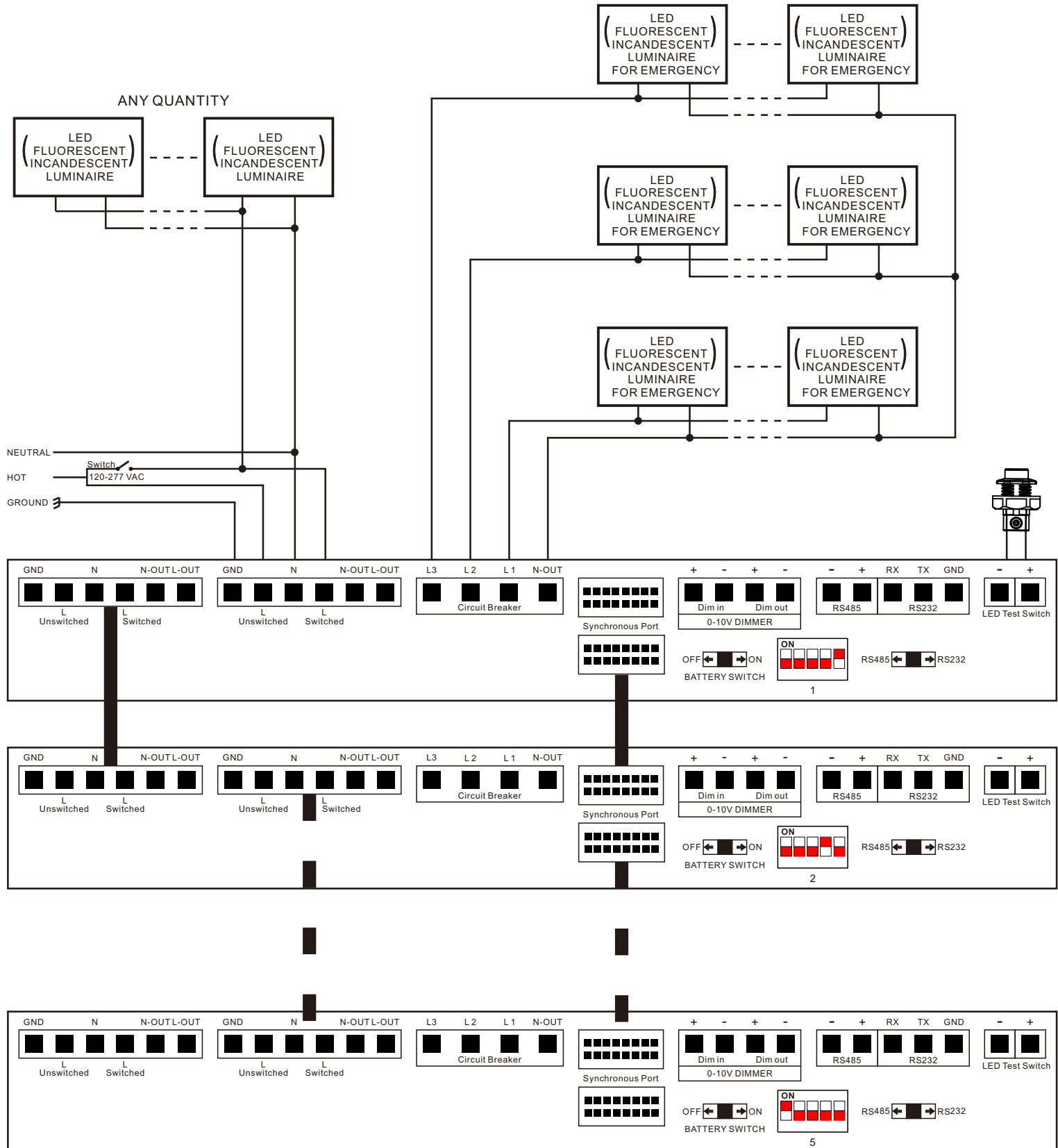
PARALLELEABLE 184804 FOR 0-10V DIMMABLE EMERGENCY LIGHTING SYSTEM (WITH 1,2 OR 3 CIRCUIT BREAKERS)

MAX. DIMMABLE LOAD = 2000W @ 120V
4000W @ 277V



PARALLELEABLE 184804 FOR NON-DIMMABLE EMERGENCY LIGHTING SYSTEM (WITH 1,2 OR 3 CIRCUIT BREAKERS)

MAX. LOAD = 800W (2x184804)
 =1200W (3x184804)
 =1600W (4x184804)
 =2000W (5x184804)



OPERATION / TESTING / MAINTENANCE

OPERATION

When AC power is applied, the LED test switch is illuminated, indicating that the batteries are being charged. When AC power fails, the 184804 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 184804 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 184804 has been charging for 1 hour. Charge for 24 hours before conducting a long term discharge test.

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 30-second discharge test by switching off the emergency breaker every month. The LTS will be off.
3. Conduct a 90-minute discharge test once per year. The LTS will be off during the test.

AUTO TEST

The 184804 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 (make sure the load is switched on), the 184804 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. The Initial Auto Test will be restarted automatically when the connected dimmable loads' maximum power increases.

2. Preprogrammed Scheduled Auto Test

a) The unit will conduct the first Monthly Auto Test after 24 hours and 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 90-minute test.

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

1. Press the LTS one time to simulate emergency mode for 10 seconds.
2. Press the LTS 2 times continuously within 3 seconds to force a 60-second monthly test. After the test is completed, the next (30-day) monthly test will count from this date.
3. 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.
4. In normal mode, press and hold the LTS for greater than 3 seconds to restart Initial Auto Test.
5. 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