

SIERRA

PORTABLE LIGHT TOWER
OPERATORS GUIDE

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3. Operation Instructions
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1. SAFETY

Sierra is intended for temporary illumination. Sierra is designed to protect the operator as much as possible and all-important safety functions are clearly labeled. It is however a requirement that the operator understands the limitations of this equipment by reading this manual.

READ THIS CAREFULLY BEFORE OPERATION TO AVOID PERSONAL INJURY OR VOID WARRANTY

- **ALWAYS** deploy the stabilizing legs, secure their locking and make sure light tower is firmly secured to the ground and stands level before the armature and mast is raised.
- **ALWAYS** make sure the area above the light tower is open and clear of overhead wires and obstructions.
- **ALWAYS** lower the mast when not in use, or if high winds or electrical storms are expected in the area.
- **ALWAYS** use electrical connections with protective earth and ground fault switch.
- **ALWAYS** keep area around the light tower clear of people while raising and lowering the mast.
- **ALWAYS** wear helmet and correct PPE gear when operating mast.
- **NEVER** hold on to the armature or mast sections when raising the mast.
- **NEVER** deploy and operate a light tower in strong winds without bolting stabilizer feet to ground.
- **NEVER** operate a light tower in need of repair.
- **NEVER** operate a light tower while tired, distracted, or under the influence of drugs or alcohol.
- **NEVER** put any extra weight/equipment on mast or armature.
- **NEVER** use chemical substances or high-pressure water to clean/rinse light tower. Use garden hose pressure only.
- **AVOID** looking directly into the light source.

SAFETY LABEL GUIDE

These signs inform the user of any danger which may cause damages to persons.

Signs	Meaning
	Risk of electric shock
	Danger of hand crush
	Read user manual before operating light tower
	Crane lifting point position

The manufacturer is not responsible of any damage to things or persons, resulting as consequence of inobservance of safety norms.

2. COMPONENT OVERVIEW

1. LED Luminaires
2. Top Arm
3. Top Arm Rotation
4. Handles
5. Stabilizer Button
6. NEMA (Light Control) Socket
7. Bullseye Spirit Level
8. Stabilizer Lock
9. Control Panel *(see below for details)*
10. Stabilizer Adjustment Handle
11. Puncture Proof Wheels
12. Stabilizer Feet



13. Main Circuit Breaker
14. Manual Light Output Switch
15. Mast Retraction Back-up
16. Light Control Switch
17. Operation Indicator
18. Ground Terminal
19. Error/Warning Indicator
20. Mast Up/Down Control
21. Power Input
22. Power Outlet Socket



3. OPERATION INSTRUCTIONS

3.1 HANDLING & TRANSPORT

Sierra is designed for single person moving and deployment and two person lifting.



- For lifting via crane - use cargo sling around the top handle structure to lift light tower.

3.2 PRELIMINARY CHECK

Before every usage, the operator must check the mast, top arm, base and electrical wires, plugs & sockets for damage. Any damage found on these items requires immediate service. Do not proceed with operations until fault is removed.

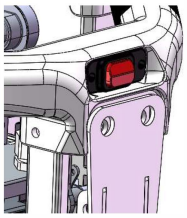
3.3 GROUNDING

For operators' safety, both the input & output socket of Sierra are grounded. If the incoming power supply is not grounded, the grounding of the machine always needs to be done. Always perform grounding operations in compliance with local/international regulations.

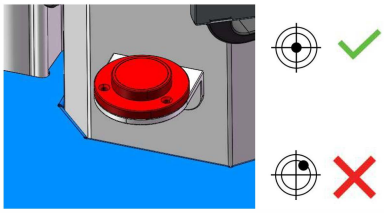
3.4 POSITIONING

Position the mast on stable ground. Angle the Sierra base so the power supply is accessible to the control panel side.

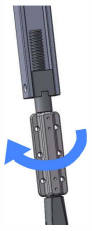
3.5 STABILIZING LIGHT TOWER



- Press and hold release button and pull out all four stabilizers to the ground



- Refer to the bullseye spirit level for the correct stability of the structure.



- Level off the tower by rotating the stabilizer handle clockwise on the leg that you want the bubble to move towards.

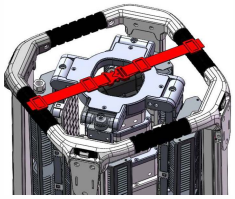
- **Bolt stabilizer feet to the ground in strong winds.**
- **Make sure the tower stands firm and level before proceeding.**

WARNING!!!
DO NOT RAISE THE MAST IF ALL STABILIZERS ARE NOT CORRECTLY DEPLOYED.

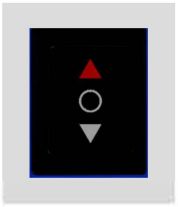
3.6 POWERING UP

- Connect the input power plug to power source
- Turn on the main breaker

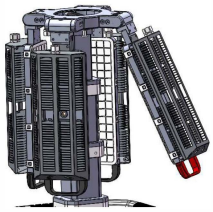
3.7 LIGHT HEAD CONFIGURATION



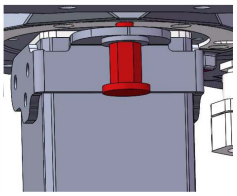
- Unclip the transport belt



- Press and hold the **"UP"** button until the mast automatically stops at head adjustment height



- Lift light heads to desired light pattern and tilt to optimal angle



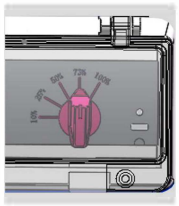
- Rotate the top arm if required

3.8 RAISE MAST

- Hold the **"UP"** button to raise mast
- Beware of overhead obstructions
- Mast will automatically stop at MAX height

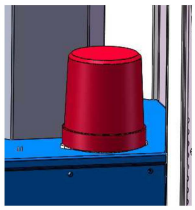
3.9 TURN ON & CONTROL LIGHTS





- To control the lights manually select "✋" then use the separate toggle switch (above) to select light level.





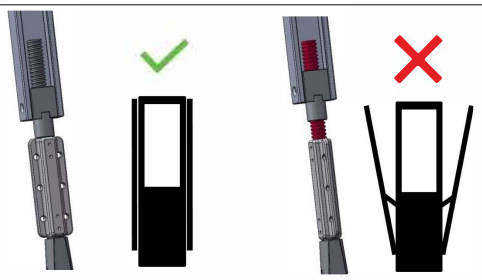
- To access NEMA socket light control select "◐" then proceed to control the lights through the device fitted in the NEMA socket.

- The light mast is prepared to be controlled with Plejd. To use PLEJD, replace the light sensor with the PLEJD Nema accessory
- Download the app "PLEJD" from the Appstore/Play
- Scan the code "Plejd tutorial" to see instructions & configuration of the app

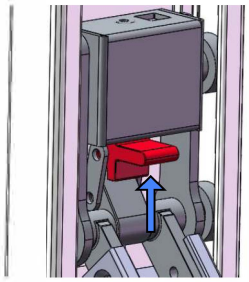
plejd
Tutorial

3.10 STOPPING & STOWING AWAY

- Press light control Switch to **"OFF"**
- Hold the **"DOWN"** mast button until the mast automatically stops at head adjustment height.
- Fold the light heads down to transport position. **Use light head handles as lights may be hot from operation.**
- Tilt the top arm to flat and rotate so the "control side home position" is on the same side as the controls.
- Hold the **"DOWN"** mast button until the mast is fully encased in the chassis. Mast will automatically stop.
- Clip the transport belt over the top



- Rotate the stabilizer handles to home position to ensure they can be stowed correctly.



- Lift leg lock up and pull up legs to transport position.

- Turn off main breaker switch and disconnect power

4. TECHNICAL DATA

Model	
Series	Sierra
Model No.	PLT-800

Performance	
Illuminated surface	2200 m2
System Power	800 W
Luminous Flux	112,000 lm
Lumen/W	140
Beam Profile	60x60 (adjustable)
Color temperature (CCT)	5000K

Electrical	
Operating Voltage	100-110VAC / 220-240VAC, 50/60Hz
Power Factor	>0.92
Electrical Class	Class I
Protection	Over Voltage, Over Temp., Short Circuit
Dimmable	Yes

Environmental	
Ambient Operating Temp. Range	-30ºC to +45ºC
Storage Temp. Range	-40ºC to +80ºC
IK class	IK08
IP class	IP65 (lighting) / IP54 (chassis)
Noise Emissions	< 5 dB(A)

Physical	
Fully extended height	5.1 meters
Elevation system	Electric
Mast Rotation	340°
Mobility	By hand / crane / forklift
Dimensions (min.)	358 x 427 x 1200 mm
Dimensions (max.)	1640 x 1640 x 5100 mm
Wind Resistance	30 m/s
Housing Finish	UV stabilised powder coating
Weight	49kg

Approvals	
Certifications	CE
Service life L80 B50 (LED)	>100,000 hrs

Specifications may vary depending on territory and are subject to change without notice.

5. MAINTENANCE

Maintenance operations shall be carried out on the light tower when at rest. Ordinary and/or extraordinary maintenance shall always be carried out by authorized, skilled personnel. Maintenance personnel shall be equipped with proper Personal Protective Equipment (PPE).

Period of inactivity

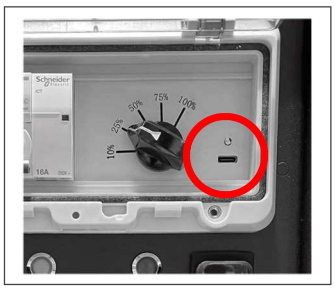
If the light tower is not used for a period more than 3 months, when the machine is turned on to work again, it must have a visual inspection conducted of the electric connections, floodlights, steel cables and serrations of telescopic mast. Any damage found on these items requires immediate service. Do not proceed with operations until fault is removed. See “Service Inspection Checklist” for complete details.

6. TROUBLE SHOOTING



Error or warnings are indicated by the red light on the control panel

Red Light Indication	Description
Flashing - Fast	Mast stuck whilst raising or lowering (error - seek assistance)
Flashing - Medium	Mast reaching upper/lower limit - Release hand from mast control switch
Flashing - Slow	Mast main stainless steel wire issue (seek assistance)
Continous on	Motor over current - Need to turn off and reboot system

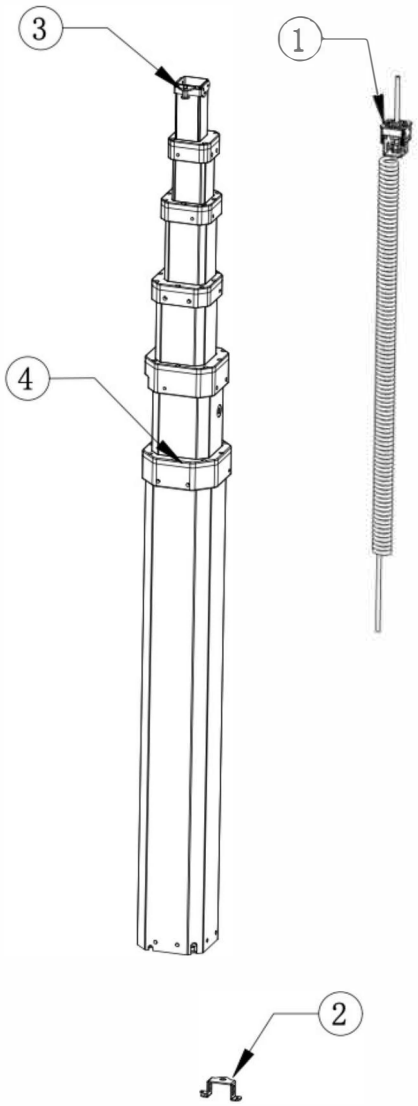


Emergency lowering of mast

Incase of emergency or power outage whilst mast is raised, operators can lower mast by inserting a 12v DC >500mA power source via the USB-C socket found on the control panel.

7. SPARE PARTS

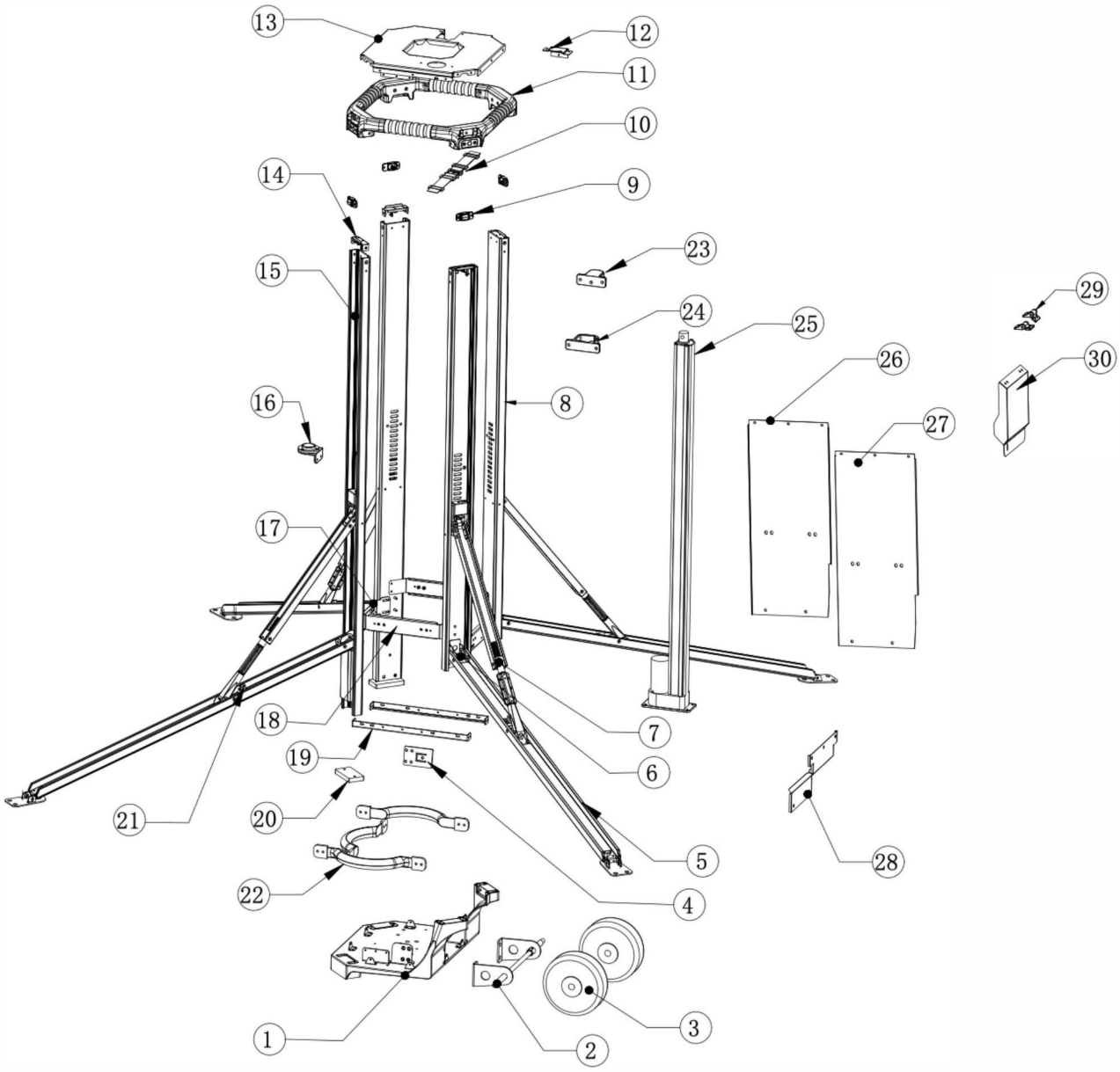
Mast



Serial	Part No.	Description
1	216000392	Spring cable assembly
2	216000393	Spring cable fixing plate
3	216000394	Lamp head connection part
4	216000401	Mast assembly

SPARE PARTS

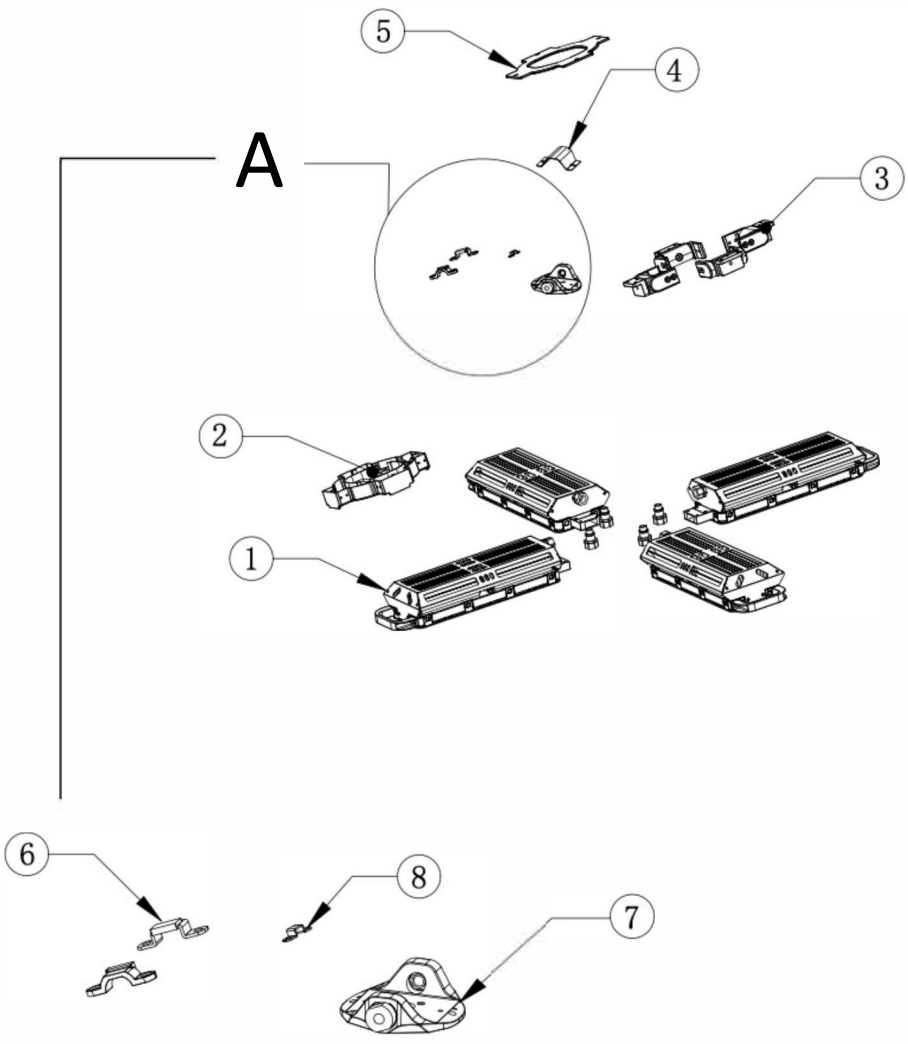
Chassis



Serial	Part No.	Description
1	216000426	Base assembly
2	216000437	Wheel holder assembly
3	216000438	Wheel
4	216000427	Weight sensor assembly
5	216000395	Outter stablizer assembly
6	216000441	Locking part
7	216000396	Sliding assembly
8	216000424	Front frame column asembly
9	216000400	Corner lock assembly
10	216000399	Yellow strape
11	216000398	Frame assembly
12	216000405	Middle section part
13	216000421	Frame middle assembly
14	216000397	Locking assembly
15	216000423	Rear frame column assembly

Serial	Part No.	Description
16	216000442	Spirit level device
17	216000422	Rear panel holder A
18	216000408	Frame side holder A
19	216000409	Driver holder A
20	216000436	Base rubber block
21	216000425	Stainless steel lock unit
22	216000439	Plastic holder
23	216000404	Lead-screw top holder
24	216000403	Lead-screw middle holder
25	216000402	Lead-screw assembly
26	216000414	Frame right cover
27	216000413	Frame left cover
28	216000411	Frame lower cover
29	300000247	Security door hinge
30	3000506309	Security door

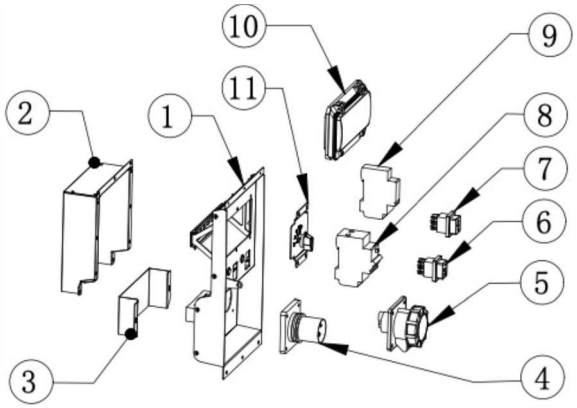
Light Heads



Serial	Part No.	Description
1	216000415	LED lamp assmebly
2	30702068K	Lamp head base cover
3	216000419	Lamp head damping assembly
4	216000416	Lamp head cable cover
5	216000420	Lamp head cover
6	216000417	Lamp head rotation clip
7	216000418	Lamp head holder
8	216000443	Wire clip

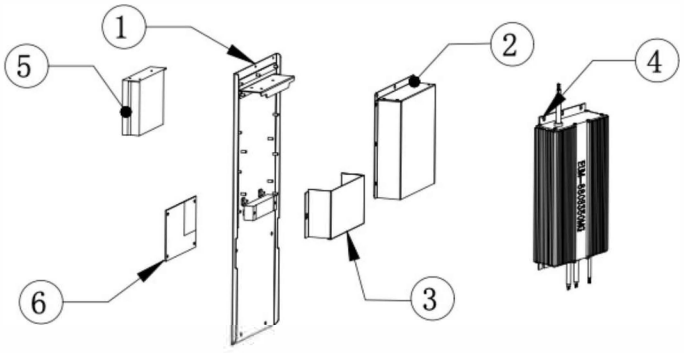
SPARE PARTS

Main Control Panel



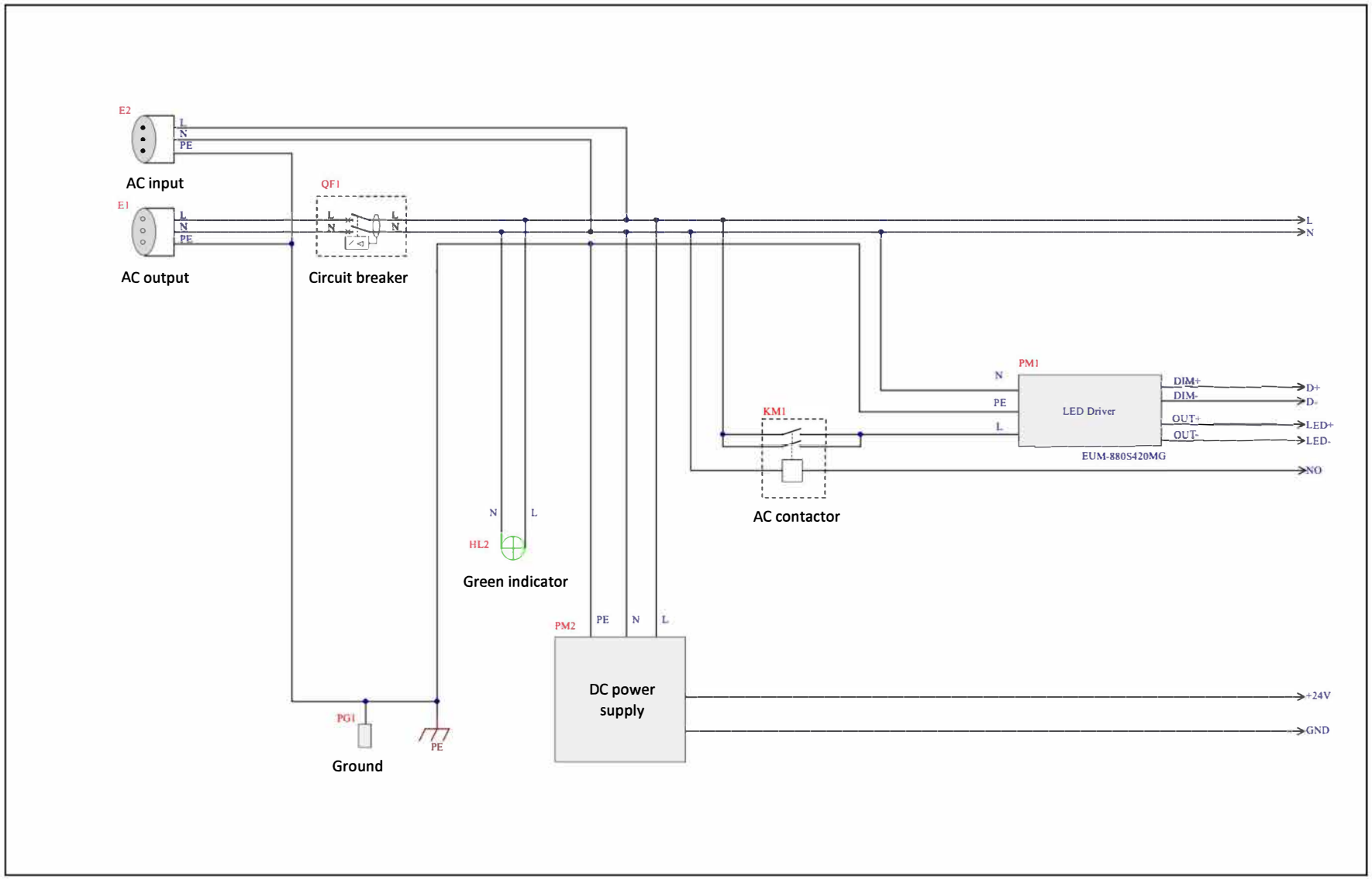
Serial	Part No.	Description
1	216000432	Front control metal assembly
2	216000430	Front panel upper cover
3	216000410	Front panel lower cover
4	310000026	AC output port
5	310000025	AC input port
6	300000258	LED lights switch
7	300000255	Mast up-down button
8	300000259	Circuit breaker
9	324000011	AC contactor
10	300000140	Control pancel cover
11	216000460	Dimming device assembly

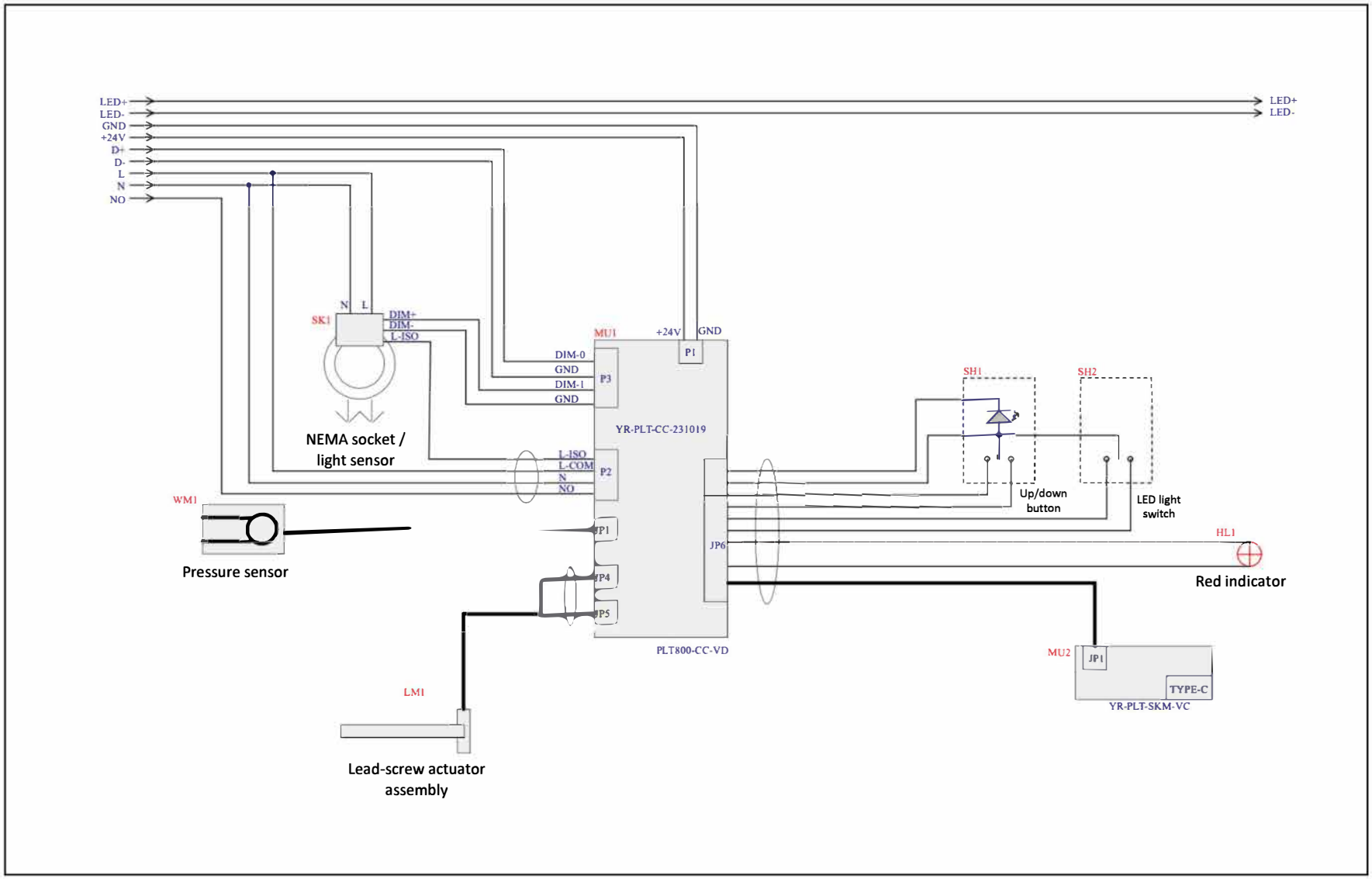
Rear Control Panel



Serial	Part No.	Description
1	216000431	Rear control metal assembly
2	216000429	Rear panel upper cover
3	216000412	Rear panel lower cover
4	3YT288024	Driver and holder assembly
5	3MW11001Z2	DC power supply
6	215PLT003	System control board

8. ELECTRICAL DIAGRAM




LED+
LED-
GND
+24V
D+
D-
L
N
NO
LED+
LED-
SK1
N
L
DIM+
DIM-
L-ISO
NEMA socket / light sensor
MU1
+24V
GND
P1
DIM-0
GND
DIM-1
GND
P3
YR-PLT-CC-231019
L-ISO
L-COM
N
NO
P2
WM1
Pressure sensor
JP1
JP4
JP5
JP6
PLT800-CC-VD
SH1
SH2
Up/down button
LED light switch
HL1
Red indicator
MU2
JP1
TYPE-C
YR-PLT-SKM-VC
LM1
Lead-screw actuator assembly

ELECTRICAL DIAGRAM

