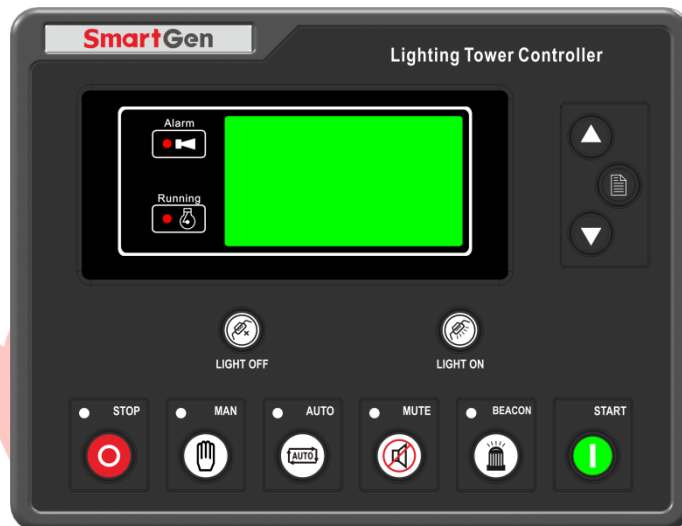




SmartGen
ideas for power

**ALC700 SERIES
(ALC704/ALC708)
LIGHTING TOWER CONTROLLER
USER MANUAL**



ZHENGZHOU SMARTGEN TECHNOLOGY CO.,LTD

4 SPECIFICATION

Parameter	Details
Working Voltage	DC8. 0V to 35. 0V, uninterruptible power supply
Overall Consumption	<5W (Standby mode: ≤2W)
Voltage Input:	
3 Phase 4 Wire	AC 20V - 360V (ph-N)
3 Phase 3 Wire	AC 30V - 600V (ph-ph)
Single Phase 2 Wire	AC 20V - 360V (ph-N)
2 Phase 3 Wire	AC 20V - 360V (ph-N)
DC	DC 0V - 75V (ph-N)
Alternator Frequency	50Hz/60Hz
Speed Sensor Voltage	1. 0 V to 24 V (RMS)
Speed Sensor Frequency	Maximum 10,000 Hz
Start Relay Output	8A DC28V power supply output
Fuel Relay Output	8A DC28V power supply output
Configurable Relay Output 1	8A DC28V power supply output
Configurable Relay Output 2	8A DC28V power supply output
Configurable Relay Output 3	8A DC28V power supply output
Configurable Relay Output 4	8A AC250V free volt output
Light Control Relay Output 1~4	8A AC250V free volt output (total output current: 8A) If 1~4 is all used, the maximum current of each light is 2A.
Light Control Relay Output 5~8	8A AC250V free volt output (total output current: 8A) If 1~4 is all used, the maximum current of each light is 2A.
Case Dimensions	197 mm x 152 mm x 47 mm
Panel Cutout	186mm x 141mm
CT Secondary Current	Rated: 5A
DC Current Input	Hall sensor's secondary side current: (4~20)mA
Working Conditions	Temperature: (-25~+70)°C Relative Humidity: (20~93)%RH
Storage Conditions	Temperature:(-25~+70)°C
Protection Level	IP55. If water-proof gasket is inserted between panel and enclosure.
Insulation Intensity	Apply AC2.2kV voltage between high voltage terminal and low voltage terminal; The leakage current is not more than 3mA within 1min.
Weight	0.71kg

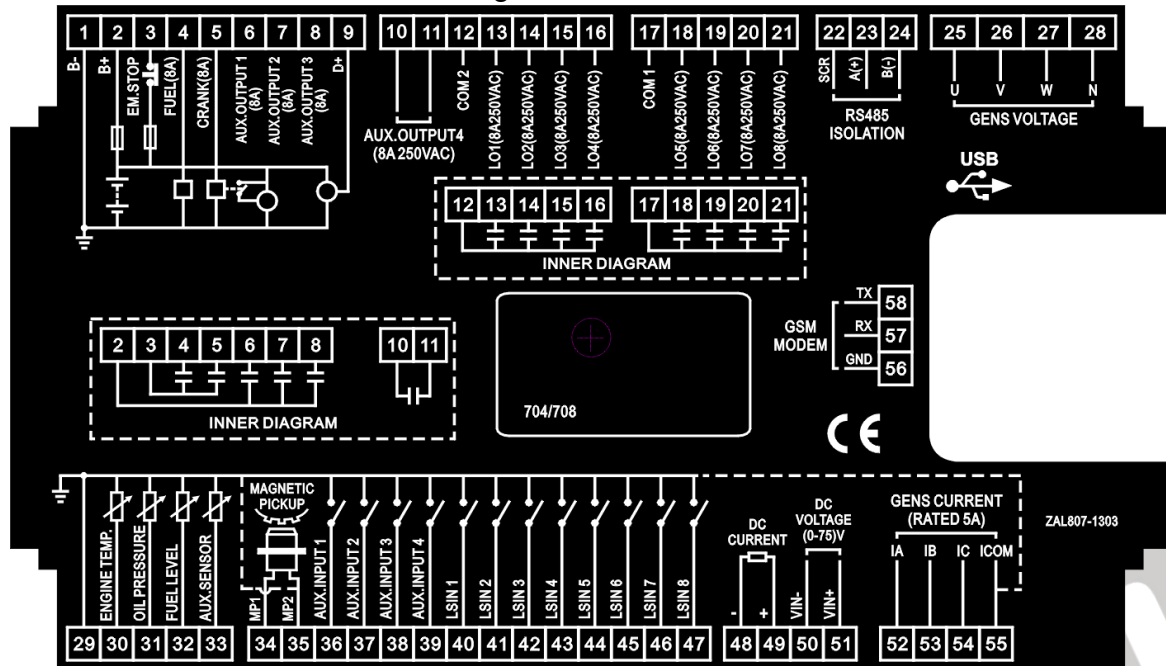
5 OPERATION

5.1 PUSHBUTTONS

Icon	Key	Description
	Stop/Reset	Stop running light tower set; Reset alarm when failure occurs; Lamp test in stop mode (press at least 3 seconds);
	Manual Mode	Press this key and controller enters in Manual mode.
	Auto Mode	Press this key and controller enters into auto start mode select interface; use to select mode and press again to confirm the selection.
	Mute	If alarm occurs, pressing the button can remove this alarm, and the indicator will light on; press the button again will reset alarm and the indicator will light off. If alarm occurs again in mute status, the controller will remove mute status automatically.
	Flashlight	Can control flashlight to switch on or off.
	Start	Start lighting tower set in Manual mode.
	Light Off	During normal running in manual mode, turn off one light for each pressing. Press this key for a long time can turn off the light in proper sequence according to preset time.
	Light On	During normal running in manual mode, turn on one light for each pressing. Press this key for a long time can turn on the light in proper sequence according to preset time.
	Menu / Confirm “√”	Press this key to enter into menu interface. In parameter setting interface press this key to right shift cursor and confirm the setting at the last bit.
	Down/Config. “-”	1) Screen scroll; 2) Down cursor and decrease value in setting menu.
	Up / Config. “+”	1) Screen scroll; 2) Up cursor and increase value in setting menu.

7 WIRING CONNECTION

ALC700 controller's rear as following:

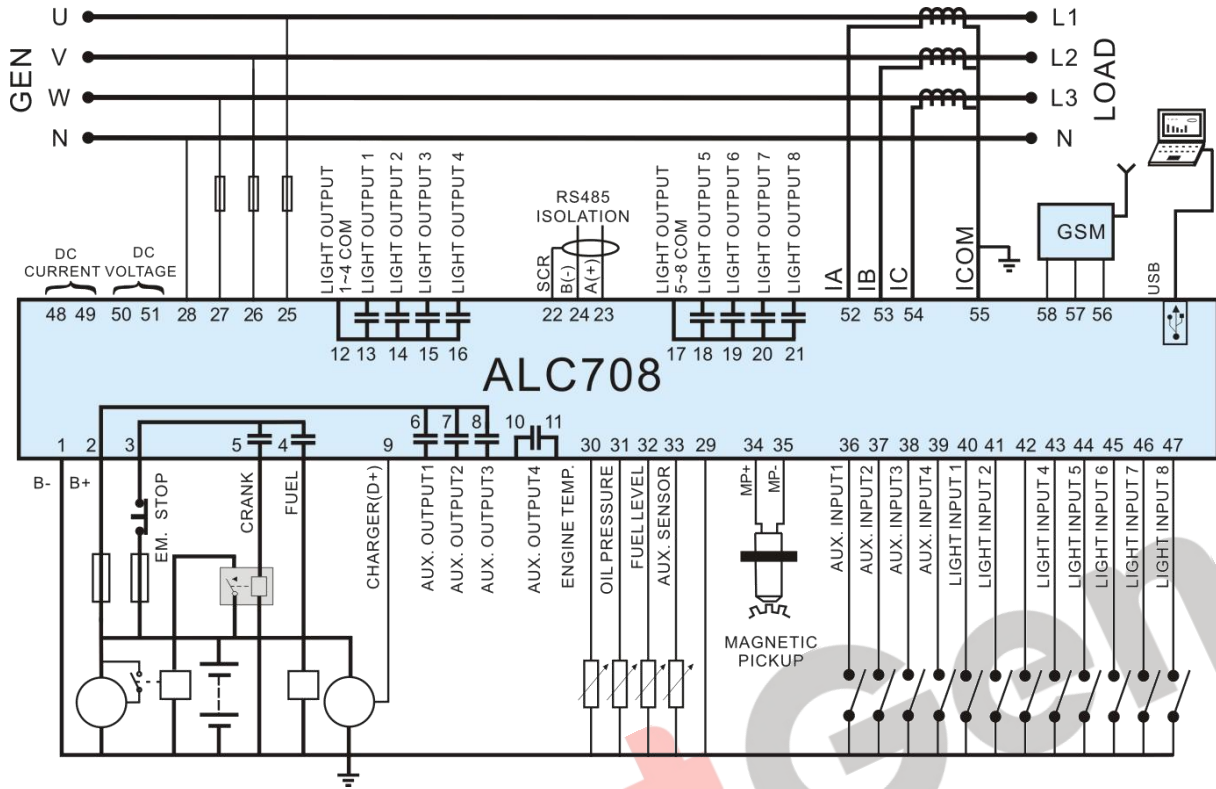


Description of terminal connection:

NO.	Functions	Cable Size	Remark
1	DC input B-	2.5 mm ²	Connected with negative of starter battery.
2	DC input B+	2.5 mm ²	Connected with positive of starter battery. 20A fuse is recommended.
3	Emergency stop	1.5 mm ²	Connected with DC voltage via emergency stop button. Max. 30A fuse is recommended.
4	Fuel relay	1.5 mm ²	DC voltage is supplied by 3 point, rated 8A.
5	Start Relay	1.5 mm ²	DC voltage is supplied by 3 point, rated 8A.
6	Aux. output 1	1.5 mm ²	B+ output, rated 8A.
7	Aux. output 2	1.5 mm ²	
8	Aux. output 3	1.5 mm ²	
9	Charger (D+)	1.0 mm ²	Connected with charger's D+ (WL) terminals. Ground connection is not allowed.
10	Aux. output 4	1.5 mm ²	Normally open voltage free outputs, rated 8A.
11		1.5 mm ²	
12	1#-4# COM	2.5 mm ²	Total output current: 8A If 1~4 is all used, the maximum current of each light is 2A.
13	1# Light Output	1.5 mm ²	
14	2# Light Output	1.5 mm ²	
15	3# Light Output	1.5 mm ²	

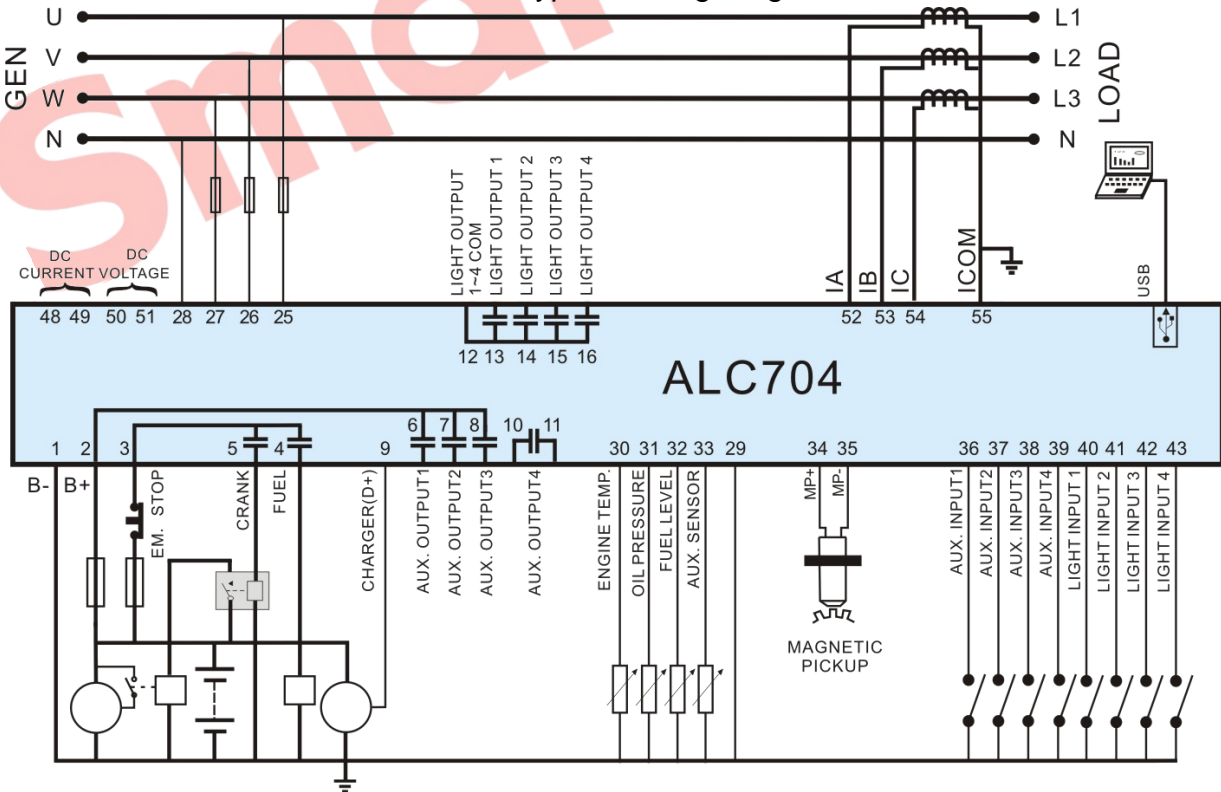
12 TYPICAL WIRING DIAGRAMS

ALC708 Typical Wiring Diagram



Note: If 8 lights are all used, the maximum current of each light is 2A.

ALC704 Typical Wiring Diagram



Note: If 4 lights are all used, the maximum current of each light is 2A.

