AEROLEDS™

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Installation Instructions

Nano E Series

⚠ WARNING: This product may contain chemicals including Methylene Chloride which is known to the State of California to cause cancer, and Bisphenol A, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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Approval	Name	Intent	
Author	Jacob Mele	Installation Instructions for Experimental Nano Series Light Assemblies	
Check	Nate Calvin		
Quality	Mark McCormack		
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REVISION RECORD

Rev	Description	Date	Author
IR	Initial Release	3/21/2025	J. Mele

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1 System Description

The Nano Series LED lights offer the capability of up to three functions in one unit: Navigation (NAV), Anti-Collision Light (ACL), and Position (POS). These lights are designed to be compatible with any aircraft wingtip, aft stabilizer, or fuselage.

2 Model Number

Table 1. Nano Electrical Specifications

Model	Part Number	Description	Voltage (VDC)	Current (A)		
				ACL		NAV/ POS
				AVG	Peak	
Nano E-NS	01-1300-B-12-L	NAV, ACL	11-15	0.7	2.6	0.8
	01-1300-B-12-R					
Nano E-NSP	01-1300-C-12-L	NAV, POS, ACL				
	01-1300-C-12-R					
Nano E-NS	01-1300-B-24-L	NAV, ACL	22-30	0.5	1.8	0.8
	01-1300-B-24-R					
Nano E-NSP	01-1300-C-24-L	NAV, POS, ACL				
	01-1300-C-24-R					

Table 2. Nano Mechanical Specifications

Model	Part Number	Weight (oz)
Nano E-Series	01-1300-x-xx-x	1.8
Bracket (Internal)	01-1308	0.2
Bracket (External)	01-1311	

Note: All listed specifications shown are **per light**

3 Airworthiness Limitations

The Airworthiness Limitations section is FAA approved and specifies maintenance required under **14 CFR, §43.16** and **14 CFR, §91.403** of the Federal Aviation Regulations unless an alternative program has been FAA approved. There are no additional airworthiness limitations.

3.1 Instructions for Continued Airworthiness

Nano light assemblies are not user serviceable. Should any individual LED fail, entire unit must be replaced.

Note: To reduce eye strain, use an optical filter such as dark glasses or a blue covering dome during LED inspection.

PERIODIC INSPECTIONS: An annual inspection shall be performed unless the OEM specifies a shorter interval.

4 Installation

Consult **14CFR, §43.13-1B** for guidance on acceptable methods, techniques, and practices.

4.1 Installation Procedures

1. Disconnect aircraft power or disable applicable circuit breakers
2. Reference OEM manual
    a. Bypass or remove existing high voltage power supply (if applicable)

    NOTE: Connecting light to high voltage power supply will result in permanent damage and will void warranty

3. Install suitable connectors and/or splices to connect light assemblies in accordance with wiring diagram(s)
4. Nano lights mount with optional brackets (Ref Figure 1&2)
5. Install using appropriate hardware (Ref Table 3 Mounting Diagram)
6. Re-connect aircraft power or enable applicable circuit breakers
7. Verify proper operation of LED light(s)
8. Record installation with logbook entry

It is recommended that ground connections for all lights be made at a single location on aircraft central ground bus. This “single point ground” scheme counteracts ground loops and ground bounce that can occur when using airframe as a ground.

4.2 Troubleshooting

1. Check for proper voltage at power input wire to light
2. Ensure light is adequately grounded
3. Check for continuity in wiring and connections
4. If wiring is verified, remove light and bench-check with appropriately sized power supply

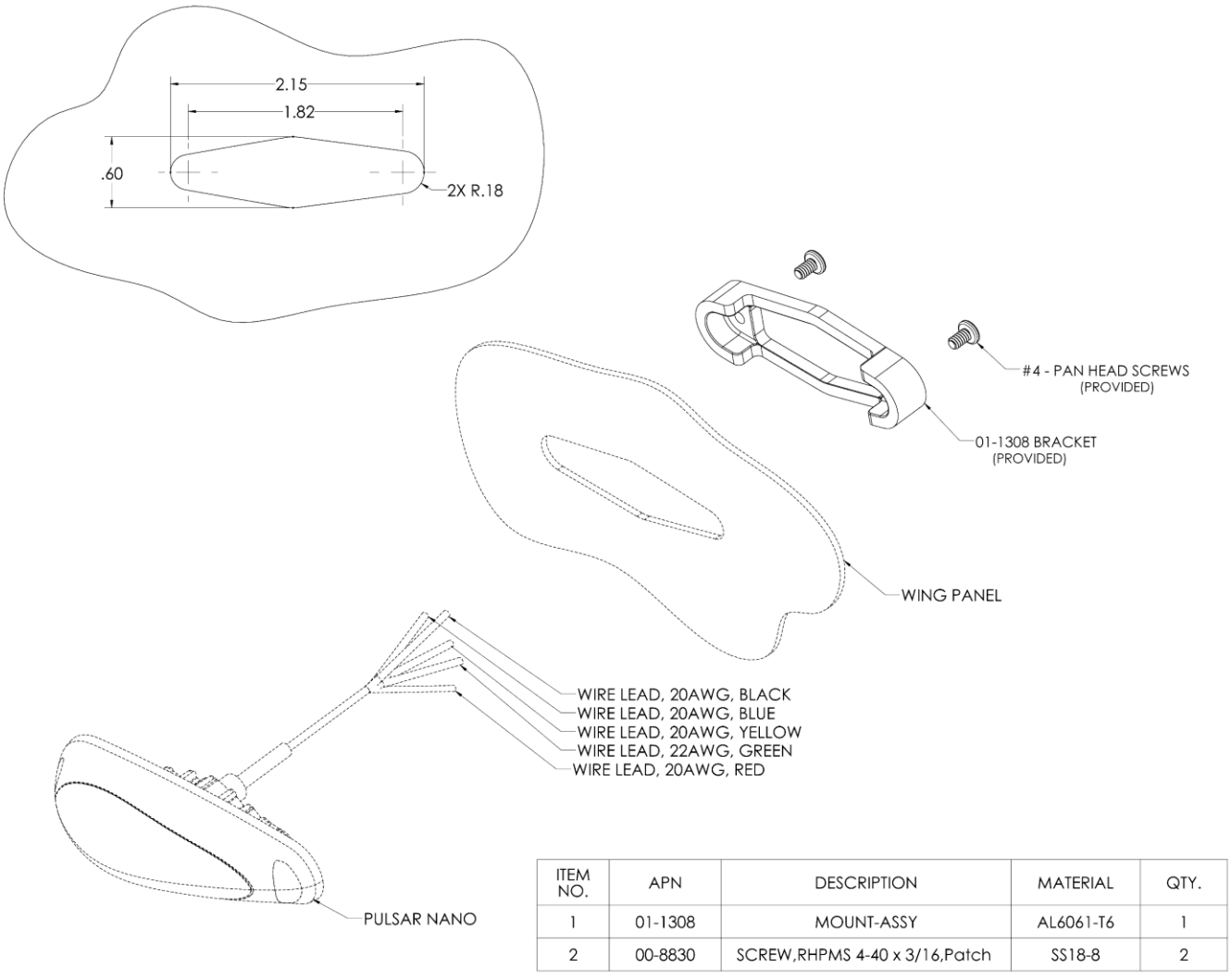
For additional questions contact AeroLEDs tech support at 1-208-850-3294

5 Diagrams

5.1 Mounting Diagrams

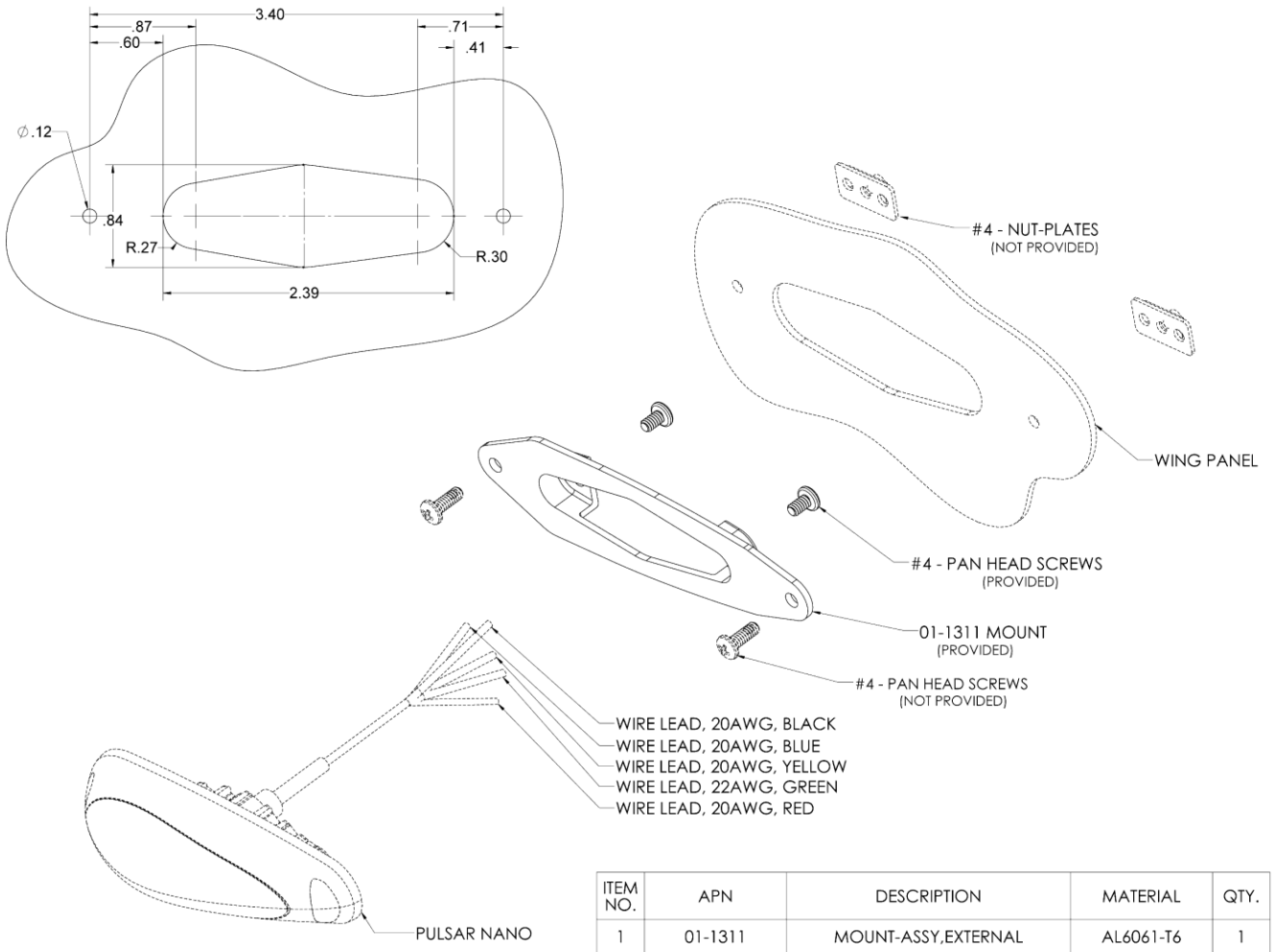
Table 3. Recommended Fastener by Panel Thickness
*For KIT-0085 Only

Panel	Screw	
Thickness (in)	Length (in)	Thread
0.02	0.25	4-40
0.03		
0.04	0.3125	
0.06		
0.08		
0.09	0.375	
0.1		



ITEM NO.	APN	DESCRIPTION	MATERIAL	QTY.
1	01-1308	MOUNT-ASSY	AL6061-T6	1
2	00-8830	SCREW,RHPMS 4-40 x 3/16,Patch	SS18-8	2

Figure 1. Nano Internal Mounting (KIT-0085) *Option 1



ITEM NO.	APN	DESCRIPTION	MATERIAL	QTY.
1	01-1311	MOUNT-ASSY,EXTERNAL	AL6061-T6	1
2	00-8830	SCREW,RHPMS 4-40 x 3/16,Patch	SS18-8	2

Figure 2. Nano External Mounting (KIT-0086) *Option 2

5.2 Wiring Diagram

WARNING: Do not connect the ACL power wire to a Xenon ACL power pack. This will damage light and voids warranty.

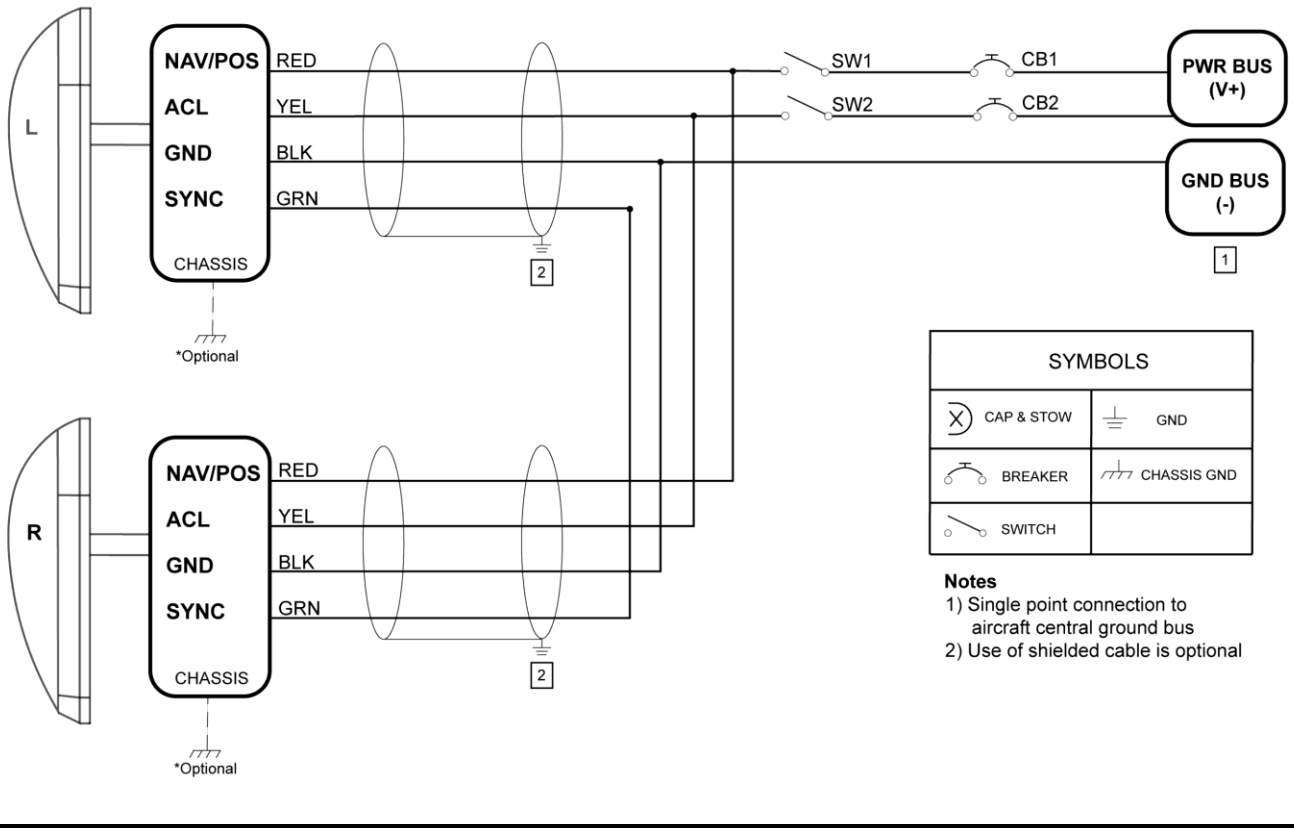


Figure 3. Nano Wiring Diagram