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Maintenance Bureau Specification 2010-01
for
LED Mini-Lightbar
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This document describes the features and specifications for a general “LED Mini-Lightbar”. This specification will cover a wide range of sizes and mounting options.

1.0 Features:

- 1.01 Unit shall have enough LED modules to provide 360-degree combined coverage around the light-bar. Gaps between LED modules shall not exceed 3 inches.
- 1.02 Unit shall meet or exceed SAE J845 requirements for a Class 1 warning beacon.
- 1.03 The unit shall be configured so that the unit can flashed simultaneously as a whole or alternately from one-half to the other.
- 1.04 All internal components, such as LED modules and power supplies, shall be modular in design for ease of replacement.
- 1.05 LED modules shall be available in one of two LED display types, regardless of the lens and reflector technology used to achieve the display (general appearance of the modules when not illuminated); Dot or Linear.
 - a. **Dot Display:** LEDs in this display type will show individual LED dots for each LED used in the module, giving the appearance of illuminated dots.
 - b. **Linear Display:** LEDs in this display type will appear to represent a vertical or horizontal line of light from each LED used in the module. This shall apply to both vertical and horizontal displays.
- 1.06 Unit shall produce at a minimum a 70 quad/quit flash pattern per minute(280/350 total flashes) with other user selectable flash patterns as required.
- 1.07 The lens color for the LED modules shall be the same as the LEDs being used: Amber for amber LEDs and clear for white LEDs.
- 1.08 Each unit shall be classified as either a “low profile” or “high profile” unit and shall not exceed 12” in width and 30” in length.
 - a. **Low Profile:** Refers to lightbars that do not exceed 3½ inches in height, not including the mounting option.

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b. **High Profile:** Refers to lightbars that are greater-than 3½ inches in height yet less-than 6 inches in height, not including the mounting option.

1.09 Unit shall have a heavy gauge, extruded aluminum or polycarbonate chassis/base which resists stress. The base of the unit shall also be capable of one of the following mounting options:

a. **Permanent Mount:** Have a means of attaching the device directly to the vehicle or through the use on a rail/rack type system.

b. **Temporary Mount:** a *magnetic* or *magnetic/suction* mount w/sufficient length cord and cigar plug with on/off switch.

1.10 Each unit shall be provided with a polycarbonate outer dome whose color shall be specified on the contract.

1.11 Unit shall be capable of operating on a voltage of 12 VDC through the use of a cord with an attached cigar plug configured with an on/off switch. The length of the cord shall be of sufficient length to operate the unit centered on the roof of the vehicle.

1.12 Average amp draw per unit shall not exceed 3.0 amps @ 12 VDC.

1.13 Unit may be equipped with an optional manual or automatic “Hi/Lo” intensity mode selector.

1.14 All units shall come complete with all applicable mounting hardware for the magnetic/suction mount option.

1.15 Unit shall include one (1) set of installation and operation instructions, in English.

2.0 **General:**

2.01 Upon award of contract ALDOT may require; 1) independent testing at Awardee’s expense to verify specifications have been met or 2) having the Awardee provide a sample unit for review/evaluation that may be returned at the Awardee’s expense and direction. Failure to comply shall be grounds for sacrifice of award. Sacrifice of award may not be limited to single line, but rather, the entire group if applicable to contract format.

2.02 All successful bidders shall be either an authorized distributor for the manufacturer or the manufacturer of the product line with sufficient quantities of new units to remedy warranty and purchase requests and offer accessories and service parts to maintain the needs of the vehicle fleet within seventy-two (72) hours after call.

2.03 The model number of the unit shall appear on the bid document line.

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- 2.04 Bid shall also include documentation such as unit specifications, cut-sheets, certifications, etc. that show item meets this specification. Failure to provide documentation with bid shall disqualify the bid without notice.
- 2.05 The unit specified shall be warranted by the manufacturer, from the date of receipt or installation, to be free of defects of material or workmanship for a period of one (1) year and the LED components shall be warranted for a period of five (5) years. Written proof of this warranty shall be provided with bid.