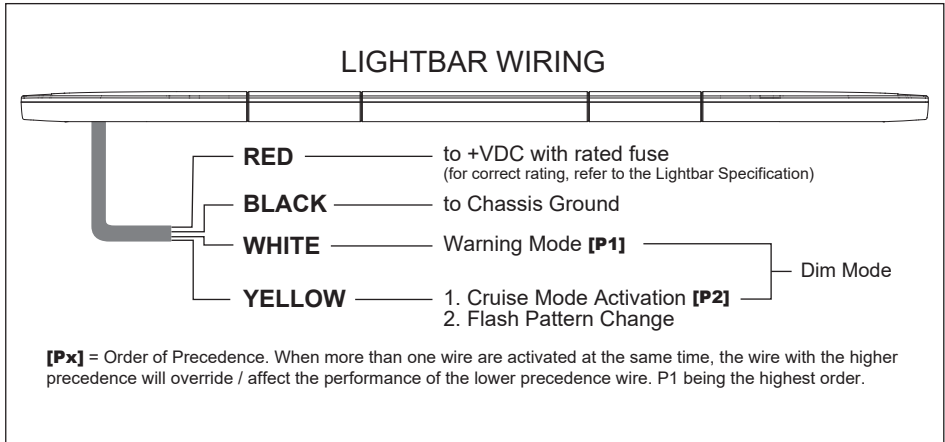# Operation Manual

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WIRING & FUNCTIONS (AL-SAE / AE-ECE R65)

Proper installation of the product requires the installer to have a good understanding of automotive electronics, systems and procedures. Different applications may require different functions. For optimum efficiency, it is highly recommended to determine, configure and test the required functions prior to Installation.

LIGHTBAR WIRING

RED ———— to +VDC with rated fuse
(for correct rating, refer to the Lightbar Specification)

BLACK ———— to Chassis Ground

WHITE ———— Warning Mode [P1] ———┐
                                      ├— Dim Mode
YELLOW ———— 1. Cruise Mode Activation [P2] ┘
2. Flash Pattern Change

[Px] = Order of Precedence. When more than one wire are activated at the same time, the wire with the higher precedence will override / affect the performance of the lower precedence wire. P1 being the highest order.

== WIRING ==

1. Route power cable's **RED** wire to battery and make sure the fuse (user-supplied) is properly installed on the red wire close to the battery end.

2. Connect the **BLACK** wire to the vehicle chassis ground.

3. Follow factory wiring harness through the firewall. It may be necessary to drill a hole in the firewall. Ensure that there is no component that could be damaged from the drilling.

4. Route control wires towards the dash area to a switch panel (user-supplied). Connect the required wires to the switch panel.

5. Make sure that all wires of power cable are securely connected to power source.

⚠ WARNING

■ **DO NOT USE THE POWER WIRE(S) AS THE LIGHTBAR ACTIVATION SWITCH. USE ONLY THE FUNCTION WIRE(S) TO SWITCH AND ACTIVATE.**

■ **FAULTY CONNECTIONS MAY CAUSE THE LIGHTBAR TO MALFUNCTION AND / OR RESET TO ITS DEFAULT SETTINGS.**

■ **DO NOT USE A HIGH PRESSURE POWER WASHER TO CLEAN YOUR LIGHTBAR; THIS MAY DAMAGE YOUR LIGHTBAR AND VOID ITS WARRANTY.**

v.1.0

WARNING MODE

1. Activate Warning Mode by applying **+VDC** to **WHITE** wire.
2. To change flash pattern, tap **+VDC** to **YELLOW** wire while Warning Mode is ON.
   - ■ Quick once to the next pattern.
   - ■ Quick 3 times to reset to default flash pattern.

DIM MODE/ MANUAL DIM

Apply **YELLOW** wire to **+VDC** constantly while a warning mode is ON.

CRUISE MODE

Active Cruise Mode by applying **+VDC** constantly to **YELLOW** wire ; all lightheads will steady burn in low power.

NOTE:

1. The cruise mode can only be triggered when WARNING MODE is OFF.
2. When turning ON warning mode in Day time, make sure to check if cruise mode is OFF correctly. Otherwise the warning mode will be triggered in dim mode.

Flash Patterns					
FP#	SAE (AL Version)	Grouping	FP#	ECE (AE Version)	Grouping
1	Single [SAE, CA13] (Default)	All	1	Double (Corners) [R65] (Default)	Corners
2	Double [SAE]	All	2	Double [2Hz]	All
3	Quad [SAE]	All	3	Quad [2Hz]	All
4	Quint [SAE]	All	4	Single [2Hz]	All
5	Mega	All	5	Triple [2Hz]	All
6	Ultra [SAE]	All	6	Double [2Hz]	Left-Right
7	Single-Quad	All	7	Quad [2Hz]	Left-Right
8	Single H/L	All	8	Single [2Hz]	Left-Right
9	Single-Triple-Quint	All	9	Triple [2Hz]	Left-Right
10	Single	Left-Right	10	ICAO Single *	Corners
11	Double	Left-Right	11	Single [1.25Hz] *	All
12	Quad	Left-Right			
13	Quint	Left-Right			
14	Mega	Left-Right			
15	Ultra	Left-Right			
16	Single-Quad	Left-Right			
17	Single H/L	Left-Right			
18	Single-Triple-Quint	Left-Right			
19	Random	All			
20	Double-Double	Left-Right			
21	Quad-Quad	Left-Right			
22	Triple-Blast	Left-Right			
23	Double-Double	Outside-in			
24	Quad-Quad	Outside-in			
25	Triple-Blast	Outside-in			
26	Swing II	Outside-in			
27	ICAO Single *	Corners			
28	Single [1.25Hz] *	All	* Dim Mode is not applicable.		

NOTE: Actual approval is based on the configuration of the model ordered.

== AUTO-DIMMING LIGHT SENSOR ==

This lightbar is equipped with an Auto-Dimming Light Sensor, Low Power Operation will automatically activate when the ambient brightness is below the set-value (e.g. night time) and deactivate once prior condition is removed. The Auto-Dimming Light Sensor takes precedence over all other function wires.