

# **EPL7300 MINI LIGHTBAR**

EPL73M+(xx) - Magnet Mount EPL73PD(xx) - Permanent Mount Low Bracket (shown)





# WARNING 🗥



- HIGH CURRENT interconnects must be properly terminated. Poor crimp quality can cause heat build-up and fire. Follow the crimp connector manufacturer instructions.
- DO NOT install this product or route any wires in the Air Bag Deployment Zone. Refer to vehicle Owner's Manual for deployment zones.
- Do NOT use system to disconnect headlights, brake lights or other safety
- Unit may become hot to touch during normal operation.
- Failure to properly install connectors, fuses or wiring may cause vehicle failure or fire
- Installation must only be performed by trained technician. Installer must determine vehicle wiring configuration and proper integration of system.
- Use proper wire gauge. All power wires connecting to positive (+) or negative (-) battery terminal or local chassis ground (-) must be sized to supply at least 125% of max. current and properly fused at power source.
- Install protective grommets when routing wire through firewall or metal.
- Petroleum/silicone based lubricants will cause the silicone lens to discolor.

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# **WARNING**

ROUTE WIRES ONLY IN LOCATIONS THAT ARE NOT SUBJECTED TO POTENTIAL WEAR. MAKE SURE TO AVOID ROUTING WIRES IN THE DEPLOYMENT AREA OF YOUR AIR BAG, REFER TO YOUR VEHICLE'S OWNER'S MANUAL FOR AIRBAG DEPLOYMENT ZONES.



Mini Pinnacle **Product Page** 



#### NOTICE:

Installers and users must comply with all applicable federal, state and local laws regarding use and installation of warning devices. Improper use or installation may void warranty coverage. To review our Limited Warranty Statement & Return Policy for this or any SoundOff Signal product, visit our website at www.soundoffsignal.com/tech-services/returns/. If you have questions regarding this product, contact Technical Services, Monday - Friday, 8 a.m. to 5 p.m. ET at 1.800.338.7337 (press #4). Questions or comments that do not require immediate attention may be emailed to techservices@soundoffsignal.com.

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TECHNICAL SPECIFICATIONS			
Overall Dimensions:	14.25"L x 8.27"W x 2.93"H		
Flash Patterns:	17 flash patterns		
Input Voltage Range:	12 - 24 Vdc		
Current Consumption:	2 Amps (Avg) - 4 Amps (Max)		
# of LEDs:	Single Color - 24 LEDS Dual Color - 48 LEDS		
Operating Temperature:	-40° to +65° C		
Cord Length:	12ft		
SAE Class 1 Certified :	Amber, Blue, Red and White		
SAE Class 3 Certified:	Green		
CA Title 13 Certified:	Amber, Blue and Red		

FLASH PATTERNS					
PATTERN #	SINGLE COLOR	DUAL COLOR	SAE COMPLIANT	CALIFORNIA TITLE 13 COMPLIANT	
1	QUI	NT	X		
2	WA	RP			
3	INTER-	CYCLE			
4	DOU	BLE	X		
5	QUA	AD	X		
6	POWER PULSE		X		
7	ROAD RUNNER		X	Χ	
8	Q-SWITCH		X (Single Color Only)		
9	STEADY-BURN / ROADRUNNER (SEQUENCE TYPE 1: STEADY BURN, SEQUENCE TYPE 2: ROADRUNNER)		Х	Х	
10	STEADY-BURN DRIV (SEQUENCE TYPE 1: STEADY TITLE 13	/ER TITLE 13 QUAD / BURN, SEQUENCE TYPE 2: QUAD)	Х	Х	
11	QUA	D 2	Х		
12	DOUBLE 2		Х	Х	
13	RANDOM 1				
14	RANDOM 2				
15	Cruise 3%				
16	Steady o	on 60%			
17	OF	F			

## PINNACLE MINI BAR PERMANENT MOUNT:

## **INSTALLATION:**

- 1. Determine a clean, flat location (typically roof) on the vehicle to mount the PINNACLE Mini Lightbar. The PINNACLE Mini Lightbar comes with two (2) steel brackets which should be used to permanently mount the light bar to a vehicle roof or similar horizontal surface.
- Position the bar with brackets attached and mark hole centers. Center punch or drill pilot holes for a 1/4" sheet metal screw (customer supplied).
- 3. Place a locking washer over the screw and securely fasten the brackets to the mounting surface. The screws and holes should be caulked with a silicone based material to prevent leakage. DO NOT OVERTIGHTEN!
- 4. Make electrical connections.

**Caution:** Do not install this product or route any wires in the air bag deployment zone. Refer to your vehicle Owner's Manual for the location of any air bag deployment zones.

# FOLLOW DIAGRAM BELOW FOR ELECTRICAL CONNECTIONS

**RED WIRE:** MODE 1 - Connect through a switch and fuse to 12-24Vdc

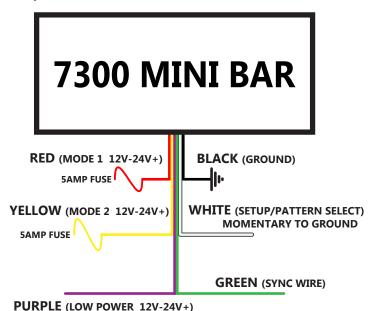
**YELLOW WIRE:** MODE 2 - Connect through a switch and fuse to 12-24Vdc

**PURPLE WIRE:** LOW POWER - Connect through a switch 12-24VDC

**BLACK WIRE:** GROUND - Connect to a good reliable ground (-)

**WHITE WIRE:** SETUP/PATTERN SELECT - Momentary, connect to ground (-)

**GREEN WIRE:** SYNC - Connect to other lights with a GREEN wire to Sync lights (Sync2 compatible lights only)



## **REPLACEMENT PARTS & ACCESSORIES**

**PMB3BKT** - Replacement Permanent Mount Bracket (each)

PMB3BRKT - Replacement Permanent Mount Bracket (kit)

**PMB3HBKT** - Replacement Permanent Mount Bracket - High Mount (each)

PMB3HBRKT - Replacement Permanent Mount Bracket (kit) - High Mount

PMB3TD(x) - EPL7000 Replacement Domes

## 

#### Control Wires (Red & Yellow), & Ground Wire (Black):

- Connect the Red and Yellow wires of the lightbar to customer supplied switches fused at 5 Amps using 18 AWG type TXL wire.
  - a. Properly sized wiring is recommended for 125% of current draw and length of run.
  - b. It is recommended that the fuse is no longer that 2 ft. from the battery.
  - c. Do not use a circuit breaker or fusible link.
- 2. Connect the Black Ground wire to a factory chassis ground. Recommended location would be near to the battery.

#### Low Power Wire (Purple):

 Connect the Purple wire to +12-24V to activate Low Power. At least one of the mode wires (Red / Yellow) must be activated for this function to work.

## Sync Wire (Green):

- Connect the green wire to other Sync2 compatible products (mpower, nFORCE Secondary Light, & Intersector Lights. 5 wire only) which are on the vehicle and need to synchronize the flash pattern. All products with the green wires connected must be operating the same flash pattern otherwise incorrect flash pattern timing will occur.
- 2. If synchronized flash patterns to other product are not required, blunt cut and tape the end of the green wire to ensure the wire is protected from being unintentionally grounded while in service.

#### Pattern Select/Configuration Wire (White):

- 1. Applying a momentary ground on the white wire will configure the product. Refer to the Setup Table on page 7 for setup options.
- Once product is configured, blunt cut and tape the end of the white wire to ensure the wire is protected from being unintentionally grounded while in service and changing the configuration.

FUNCTION TABLE				
FUNCTION	WIRE	MINI BAR TYPE	DEFAULT SETTING	
Mode 1 Activation	RED Wire - Positive	Single Color or Single Color Split Mini bar:	Flash Pattern 11 (QUAD2), Color Swap OFF, Sequence Type SIMULTANEOUS, Color Mode Color 1	
		Dual Color or Dual Color Split Mini bar:	Flash Pattern 11 (QUAD2), Color Swap OFF, Sequence Type SIMULTANEOUS, Color Mode Color 1	
Mode 2 Activation	YELLOW Wire - Positive	Single Color or Single Color Split Mini bar:	Flash Pattern 11 (QUAD2), Color Swap OFF, Sequence Type ALTERNATE, Color Mode Color 1	
		Dual Color or Dual Color Split Mini bar:	Flash Pattern 16 (Steady ON), Color Swap OFF, Sequence Type SIMULTANEOUS, Color Mode Color 2	
Mode 3 Activation	RED & YELLOW Wire - Positive	Single Color or Single Color Split Mini bar:	Flash Pattern 7 (ROAD RUNNER), Color Swap OFF, Sequence Type ALTERNATE, Color Mode Color 1	
		Dual Color or Dual Color Split Mini bar:	Flash Pattern 16 (Steady ON), Color Swap OFF, Sequence Type SIMULTANEOUS, Color Mode Color 2	
Low Power	PURPLE - Positive	Connect PURPLE wire to Power to activate Low Power. At least one of the Mode wires (RED / YELLOW) must be activated for this function to operate.		
Sync:	GREEN Wire connected with other Green Wires	Connect GREEN wires from up to 24 Sync2 compatible devices together. Each unit must be on the same pattern, but can be on a different phase.		
Setup/Pattern Select	WHITE Wire - Momentary to Ground	Momentarily Apply WHITE Wire TO Ground Wire for time identified to access each configurable setting (Page 7).		

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#### **INSTALLATION:**

- Determine a clean, flat location (typically the roof) on the vehicle to mount the PINNACLE Mini Lightbar. The PINNACLE Mini Lightbar comes equipped with four magnetic feet. It is the responsibility of the installer and end user to determine whether it is safe to use magnetic mounting hardware for your application. A Permanent Mount version (EPL7PD(x)C) is available.
   Note: The magnetic character of roof steel varies from vehicle to vehicle. Be sure that your vehicle is capable of providing enough magnetic force to safely secure the PINNACLE
- A Protective Film has been provided with the PINNACLE Mini Lightbar kit that can be applied to the bottom of each magnet. This film will protect the paint of the vehicle. Apply one donut shaped decal to the bottom of each magnetic foot. Be sure to cover the magnet entirely for maximum protection to the paint finish.

Mini Lightbar to the roof.

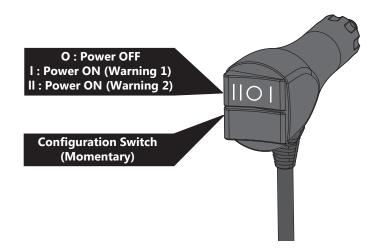
NOTE: Protective film can reduce the magnetic force by as much as 10%.

**Caution:** Do not install this product or route any wires in the air bag deployment zone. Refer to your vehicle Owner's Manual for the location of any air bag deployment zones.

#### **OPERATION:**

#### **MOMENTARY SWITCH**

Using the Momentary button acts exactly like the WHITE wire. This will allow the product to be configured. Refer to the Setup Table on Page 7 for the configuration steps.



## **REPLACEMENT PARTS & ACCESSORIES**

PMB3BMG: Replacement Magnetic Foot (each)
PMB3MGKT: Replacement Magnetic Mount (kit)
PMB3TD(x) - EPL7000 Replacement Domes
PMB3CGPG: Replacement 12V-24V Cig Plug

## **ELECTRICAL INSTRUCTIONS**

## **SETUP TABLE:**

#### ADVANCE PATTERN

Flash pattern can only be changed when the light bar is in a flashing mode (disabled in cruise or steady ON functions). When the light is flashing, momentarily connect the white wire to ground for >250mS and <1S (light will go steady high) then release. The flash pattern will advance to the next pattern. If the lightbar was at the last pattern, the pattern will reset to the 1st pattern.

#### **BACKUP PATTERN**

This function is only valid when the light bar is in a flashing mode (disabled in cruise or steady ON functions). When the light bar is flashing, momentarily connect the white wire to ground for >1S and < 2S (light will go steady high, steady low) then release. The flash pattern will backup to the previous pattern. If the light bar was at the first pattern, the pattern will change to the last pattern on the list.

#### **COLOR SWAP**

This function is only valid for dual color light bars and can only be changed when the light bar is in a flashing mode (disabled for single color light bar and when light bar is operating in cruise or steady ON functions). When the light bar is flashing, momentarily connect the white wire to ground for >2S and <3S (light bar will go steady high, steady low, off) then release. The light bar will switch between Color Swap OFF and Color Swap ON. When Color Swap is OFF, the 1st color will flash 1st on a dual color pattern. When Color Swap is ON, the 2nd color will flash 1st on a dual color pattern.

#### SIMULTANEOUS/ALTERNATE/SPLIT

This function can only be changed when the light bar is in a flashing mode and only has an effect when at least 2 light bars have the green sync wire connected together. When the light bar is flashing, momentarily connect the white wire to ground for >3S and <4S (light bar will go steady high, steady low, off, steady high) then release. The light bar will switch between Simultaneous, Alternate and Split each time this sequence is done. To have light bars flash simultaneously, both light bars need to be set to the same sequence type (Set-Up Table). To have light bars flash alternately, the light bars need to be set to different sequence types (Set-Up Table).

#### **COLOR MODE:**

This function is only valid for dual color light bars and can only be changed when the light bar is in a flashing mode (disabled for single color light bar and when light bar is operating in cruise or steady ON functions). When the light bar is flashing, momentarily connect the white wire to ground for >4S and <5S (light bar will go steady high, steady low, off, steady high, steady low) then release. The activated function wire/s will switch between Color 1, Color 2 and Color 1&2. When Color 1&2, the flashing will follow the dual color pattern rules on Function Table.

## **PATTERN RESET**

This function is only valid when the light bar is in a flashing mode (disabled in cruise or steady ON functions). When the light bar is flashing, momentarily connect the white wire to ground for >5S and <6S (light will go steady high, steady low, off, steady high, steady low, off) then release. The flash pattern will reset to the 1st pattern in the list.

#### **FACTORY RESET**

This function is only valid when the light bar is in a flashing mode (disabled in cruise or steady ON functions). When the light bar is flashing, momentarily connect the white wire to ground for >6S and <7S (light will go steady high, steady low, off, steady high, steady low, off, steady high) then release. The light bar will reset to: pattern=1, Color Swap=OFF, Simultaneous. All warning modes will reset to default settings.

# **SETUP TABLE ON NEXT PAGE (7)**

# **ELECTRICAL INSTRUCTIONS CONTINUED**

# **SETUP TABLE:**

SETUP TABLE				
SECONDS		USER INTERFACE		
FROM	то	VISUAL FEEDBACK	ACTION TAKEN	
0	1	Steady-High (60%)	FORWARD ONE PATTERN	
1	2	STEADY-LOW (30%)	BACKWARD ONE PATTERN	
2	3	OFF	COLOR SWAP (OFF OR ON )	
3	4	STEADY - HIGH (60%)	SEQUENCE TYPE: SIMULTANEOUS, SPLIT OR ALTERNATE	
4	5	STEADY - LOW (30%)	COLOR MODE (1, 2, 1&2)	
5	6	OFF	RESET TO PATTERN 1	
6	7	STEADY-HIGH (60%)	FACTORY RESET	

# **NOTES:**

# **WARRANTY & RETURN GOODS PROCEDURE**

#### **CLEANING & CARE OF YOUR LIGHTBAR:**

Keeping the lenses clean and scratch free will optimize the performance of the lightbar. The exterior of the lightbar including lenses should be cleaned with mild soapy water and a soft cotton cloth to remove dirt, grime and insects. Never use window cleaners or harsh chemicals on the lenses; this may cause failure of the lenses or reduce clarity resulting in the reduction of light output.

#### **MOUNTING INTEGRITY:**

A review of bolt/hardware/mounting bracket integrity should be performed at the beginning and end of each shift.

#### **WARNING MESSAGES - PLEASE READ:**

**WARNING** - DRILLING ANY HOLES INTO THE LIGHTBAR IS NOT RECOMMENDED! THE RISK OF DAMAGING INTERNAL COMPONENTS AND THE RESULTING FAILURE OF THE LIGHTBAR WILL VOID ANY WARRANTY OF THIS PRODUCT.

WARNING - CARE MUST BE TAKEN WHEN DRILLING THROUGH THE ROOF OF THE VEHICLE NOT TO DRILL INTO ANY EXISTING WIRING AND NOT TO DRILL THROUGH THE HEADLINER OR SUPPORT MEMBERS OF THE VEHICLE. CHECK BOTH SIDES OF THE MOUNTING SERVICE PRIOR TO DRILLING. DE-BURR ANY HOLES AND REMOVE ANY METAL SHARDS OR REMNANTS. INSTALL GROMMETS INTO ALL WIRE PASSAGE HOLES.

**WARNING** - ROUTE WIRES ONLY IN LOCATIONS THAT ARE NOT SUBJECTED TO POTENTIAL WEAR. MAKE SURE TO AVOID ROUTING WIRES IN THE DEPLOYMENT AREA OF YOUR AIR BAG. REFER TO YOUR VEHICLE OWNER'S MANUAL FOR AIR BAG DEPLOYMENT ZONES.

**WARNING** - ALL CUSTOMER SUPPLIED POWER WIRES CONNECTING TO THE POSITIVE (+) OR NEGATIVE (-) BATTERY TERMINAL OR LOCAL CHASSIS GROUND (-) MUST BE SIZED TO SUPPLY AT LEAST 125% OF THE MAXIMUM CURRENT AND PROPERLY FUSED AT THE POWER SOURCE WITH APPROPRIATELY RATED FUSE.

**IMPORTANT:** When passing cables through fire wall or other sheet metal, insert grommet to protect the cable!

#### **WARRANTY RETURN PROCESS:**

Please scan QR code or visit <a href="https://soundoffsignal.com/support-page/returns/">https://soundoffsignal.com/support-page/returns/</a>.



Alternatively contact your SoundOff Signal Sales Representative, Customer Services staff or our Technical Department (800.338.7337) for a RMA #, Return Merchandise Authorization Number.

The following information is required for issuance of the RMA #:

- Reason for returning the product\*
- Address where replacement product is to be shipped\*
- · Telephone number where you may be reached\*
- SoundOff Signal invoice number on which product was purchased\*\*
- SoundOff Signal part number and serial number\*\*
- E-mail address where RMA # should be e-mailed\*\*
- Fax number where RMA # should be faxed\*\*
- \* RMA # will not be given without this information.
- \*\* If available, please provide this information.

SoundOff Signal will NOT accept returns without an RMA #. Each RMA # is good for only one (1) return and will expire (30) days after the date it was issued. Products must be shipped back to SoundOff Signal and the RMA # clearly marked on the outside of the package near the shipping label. Please use the following address on your shipping label:

SoundOff Signal ATTN: RMA # / Technical Services 3900 Central Parkway Hudsonville, MI 49426

#### **WARRANTY EXCLUSIONS:**

Shipping & Handling, labor and service fees are non-refundable. SoundOff Signal is not liable for any damage due to installation or personal injury as a result of using SoundOff Signal product.

#### **WARRANTY FORFEITURE:**

Warranty will not be granted if the Warranty Return Policy & Procedure rules are not strictly followed. Physical damage resulting from customer abuse will void warranty. Warranty will also be voided if any SoundOff Signal and/or manufacturer serial tags, product stickers, seals, or the like, are removed, altered or tampered with. Returned product that is damaged by shipping via the RMA # procedure is not the responsibility of SoundOff Signal.

Document effective date on cover and below supersedes previously dated policies and statements.

There are no other warranties, expressed or implied, including, but not limited to, any implied merchantability or fitness for a particular use. SoundOff Signal reserves the right to modify this warranty statement at any time; or to discontinue, modify, or upgrade any products of its manufacture with design improvements without prior notice.