

## INSTALLATION AND CONFIGURATION MANUAL ABRAMS FLEX3 GRILLE LIGHT

**MODEL: FLEX-3**

### WARNING:

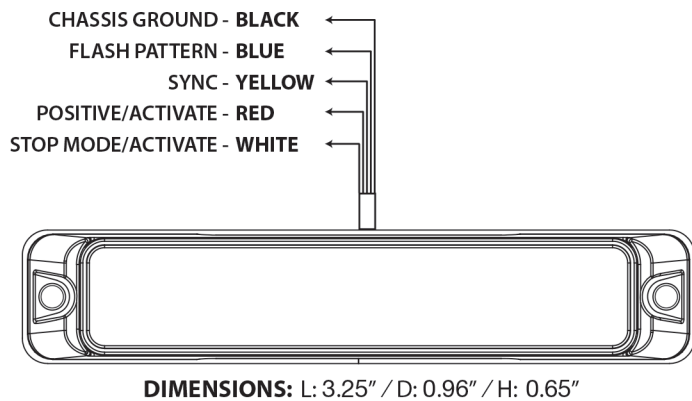
FAILURE TO INSTALL OR USE THIS PRODUCT ACCORDING TO MANUFACTURER'S RECOMMENDATIONS MAY RESULT IN PROPERTY DAMAGE, SERIOUS INJURY, AND/OR DEATH.

### IMPORTANT:

PLEASE READ ALL OF THE FOLLOWING INSTRUCTIONS BEFORE INSTALLING YOUR NEW ABRAMS FLEX-3 GRILLE LIGHT.

- PROPER INSTALLATION OF THIS PRODUCT REQUIRES THE INSTALLER TO HAVE A GOOD UNDERSTANDING OF AUTOMOTIVE ELECTRONICS, SYSTEMS AND PROCEDURES.
- THIS PRODUCT CONTAINS HIGH-INTENSITY LEDS. DO NOT STARE DIRECTLY INTO THESE LIGHTS. MOMENTARY BLINDNESS AND/OR EYE DAMAGE COULD RESULT.
- DO NOT INSTALL THIS PRODUCT OR ROUTE ANY WIRES IN THE DEPLOYMENT AREA OF YOUR AIR BAG. EQUIPMENT MOUNTED OR LOCATED IN THE AIR BAG DEPLOYMENT AREA WILL DAMAGE OR REDUCE THE EFFECTIVENESS OF THE AIR BAG, OR BECOME A PROJECTILE THAT COULD CAUSE SERIOUS PERSONAL INJURY OR DEATH. REFER TO YOUR VEHICLE OWNER MANUAL FOR THE AIR BAG DEPLOYMENT AREA. THE USER/INSTALLER ASSUMES FULL RESPONSIBILITY TO DETERMINE PROPER MOUNTING LOCATION, BASED ON PROVIDING ULTIMATE SAFETY TO ALL PASSENGERS INSIDE THE VEHICLE.
- IF MOUNTING THIS PRODUCT REQUIRES DRILLING HOLES, THE INSTALLER MUST BE SURE THAT NO VEHICLE COMPONENTS OR OTHER VITAL PARTS COULD BE DAMAGED BY THE DRILLING PROCESS. CHECK BOTH SIDES OF THE MOUNTING SURFACE BEFORE DRILLING BEGINS. ALSO DE-BURR ANY HOLES AND REMOVE ANY METAL SHARDS OR REMNANTS. INSTALL GROMMETS INTO ALL WIRE PASSAGE HOLES.

- INSPECT AND OPERATE THIS PRODUCT REGULARLY TO CONFIRM ITS PROPER OPERATION AND MOUNTING CONDITION. DO NOT USE A PRESSURE WASHER TO CLEAN THIS PRODUCT.
- FOR THIS PRODUCT TO OPERATE AT OPTIMUM EFFICIENCY, A GOOD ELECTRICAL CONNECTION TO CHASSIS GROUND MUST BE MADE. THE RECOMMENDED PROCEDURE REQUIRES THE PRODUCT GROUND WIRE TO BE CONNECTED DIRECTLY TO THE NEGATIVE (-) BATTERY POST.
- IT IS RECOMMENDED THAT THESE INSTRUCTIONS BE STORED IN A SAFE PLACE AND REFERRED TO WHEN PERFORMING MAINTENANCE AND/OR REINSTALLATION OF THIS PRODUCT.
- FAILURE TO FOLLOW THESE SAFETY PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY TO YOU AND YOUR PASSENGERS!
- IF THIS PRODUCT USES A REMOTE DEVICE TO ACTIVATE OR CONTROL THIS PRODUCT, MAKE SURE THAT THIS CONTROL IS LOCATED IN AN AREA THAT ALLOWS BOTH THE VEHICLE AND THE CONTROL TO BE OPERATED SAFELY IN ANY DRIVING CONDITION.
- DO NOT ATTEMPT TO ACTIVATE OR CONTROL THIS DEVICE IN A HAZARDOUS DRIVING SITUATION



### OPERATION FOR SINGLE COLOR LIGHTHEAD FUNCTION

<b>BLACK</b>	NEGATIVE/GROUND
<b>BLUE</b>	PATTERN SWITCH
<b>YELLOW</b>	SYNCHRONIZED FUNCTION
<b>RED</b>	POSITIVE (NEED TO ADD 2A FUSE)
<b>WHITE</b>	STOP/TURN/BRAKE (STEADY BURN OPTION)

### ABRAMS FLEX3 GRILLE LIGHT SPECIFICATIONS

<b>INPUT VOLTAGE</b>	10-30VDC
<b>WORK CURRENT</b>	12V - 2.0A (MAX) 24V - 1.2A (MAX)
<b>WATERPROOF</b>	IP67

**1. Changing Patterns:** Patterns can be changed by momentarily connecting the blue wire to the ground of your vehicle's battery.

Less than 1 Second	Next Pattern
1-3 Seconds	Previous Pattern
3-5 Seconds	Factory Default
5+ Seconds	Turn off and Reset

**2. Syncing Instructions:** Configure both intensity light heads to the same pattern in Phase 1 and connect the yellow wires from each light head together.

**3. Alternating Light Heads:** Set every other light to the same pattern in Phase 2 and connect the blue wires. To better understand how this feature works, each lighthouse coming from the factory will display Phase 1. In order to have one Intensity light head alternate with another, every other light needs to be advanced to the current pattern's Phase 2.

### PACKAGE CONTENTS:

- FLEX-3 GRILLE LIGHT
- MOUNTING GASKET
- SCREWS
- PRODUCT MANUAL

### Recommend Operation Environment

Ambient Temperature: -30 to 50

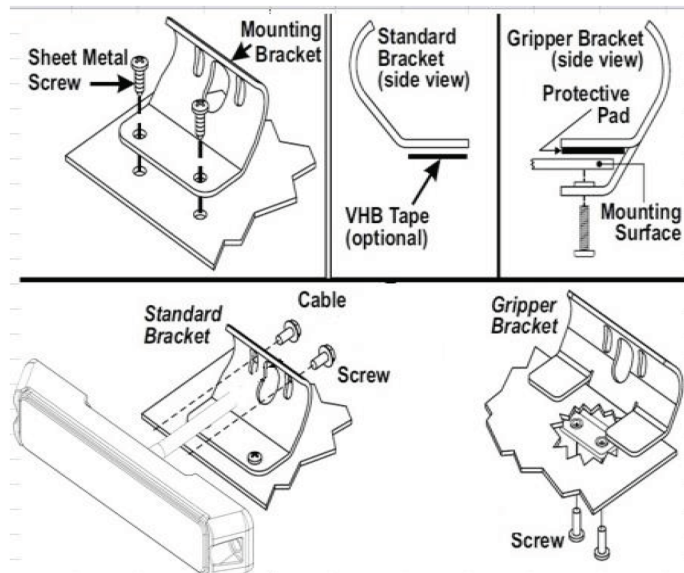
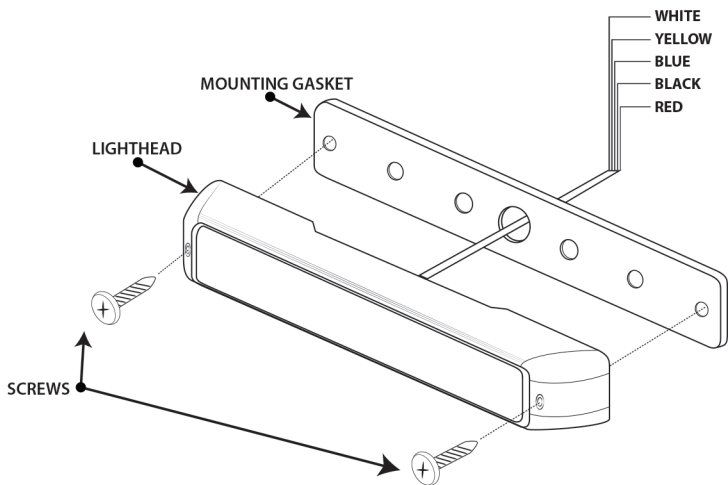
Relative Humidity: 10 to 85% , non-condensing

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### SURFACE MOUNTING

1. PLACE THE UNIT AGAINST THE MOUNTING SURFACE.
2. MARK THE AREAS WHERE THE MOUNTING HOLES ARE TO BE DRILLED.
3. USING A BIT SIZED FOR A #6 SHEET METAL SCREW, DRILL TWO MOUNTING HOLES AND (0.4" DIA). WIRE PASSAGE HOLE(S) MUST ALSO BE DRILLED.
4. ROUTE THE WIRES THROUGH THE HOLE(S) IN THE GASKET AND THROUGH THE WIRE PASSAGE HOLE(S) IN THE MOUNTING SURFACE. SECURE THE LIGHT-HEAD TO THE MOUNTING SURFACE USING THE SCREWS PROVIDED.



### FLEX 3-FLASH PATTERNS

P1-SINGLE 75 PH1
P2-SINGLE 75 PH2
P3-SINGLE 120 PH1
P4-SINGLE 120 PH2
P5-DOUBLE 75 PH1
P6-DOUBLE 75 PH2
P7-DOUBLE 120 PH1(R65)
P8-DOUBLE 120 PH2(R65)
P9-QUAD 75 PH1
P10-QUAD 75 PH2
P11-QUAD 150 PH1
P12-QUAD 150 PH2
P13-TRIPLE 75 PH1
P14-TRIPLE 75 PH2
P15-QUINT 150 PH1
P16-QUINT 150 PH2
P17-STEADY BURN
P18-MODULATION
P19-2 DOUBLE, 2 TRIPLE ALTER
P20-4 SINGLE, 2 QUAD
P21-OFF

### TROUBLESHOOTING:

THE FLEX-3 SERIES HAS BEEN FACTORY TESTED AND APPROVED

IF THE FUNCTIONS OF THE DEVICE FAIL, PLEASE CHECK THE FOLLOWING:

1. AFTER CONNECTING WITH THE POWER SUPPLY, BE SURE THAT THE POWER SOURCE END IS JOINED IN CORRECT WAY. AND THEN, MAKE SURE THAT THERE IS NO SHORT-CIRCUIT POWER OCCURRING.
2. ENSURE POWER SWITCH IS TURNED TO ON POSITION.
3. PRESS THE PATTERN SWITCH TO BE SURE THE "OFF" PATTERN IS NOT SELECTED. IF THE BLUE WIRE TOUCHES BLACK WIRE OVER 5 SECONDS, IT WOULD SWITCH TO OFF PATTERN. IT WOULD BE LIGHTED UP AGAIN WHEN USING BLUE WIRE TOUCHES BLACK WIRE LESS THAN 1 SECOND.

\*\*IF YOU REQUIRE ADDITIONAL INFORMATION AND/OR VIDEO AND USER GUIDES, PLEASE VISIT [WWW.ABRAMSMFG.COM/SUPPORT](http://WWW.ABRAMSMFG.COM/SUPPORT) OR CALL ABRAMS CUSTOMER SUPPORT 844.9.ABRAMS

### WARRANTY (5 YEAR WARRANTY)

THIS PRODUCT WAS TESTED AND FOUND TO BE OPERATIONAL AT THE TIME OF MANUFACTURE. PROVIDED THIS PRODUCT IS INSTALLED AND OPERATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, ABRAMS GUARANTEES THIS PRODUCT FOR A PERIOD OF 5 YEARS FROM THE DAY OF PURCHASE OR DELIVERY, WHICH EVER IS LATER. UNITS DEMONSTRATED TO BE DEFECTIVE WITHIN THE WARRANTY PERIOD WILL BE REPLACED. IMPROPER INSTALLATION OR USE OF INAPPROPRIATE OR INADEQUATE WIRING OR CIRCUIT PROTECTION CAUSES THE WARRANTY TO BE VOID. FAILURE OR DESTRUCTION OF THE PRODUCT RESULTING FROM ABUSE OR UNUSUAL USE AND/OR ACCIDENTS IS NOT COVERED BY THIS WARRANTY. ABRAMS SHALL IN NO WAY BE LIABLE FOR OTHER DAMAGES INCLUDING CONSEQUENTIAL, INDIRECT OR SPECIAL DAMAGES WHETHER LOSS IS DUE TO NEGLIGENCE OR BREACH OF WARRANTY. ABRAMS MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY INCLUDING, WITHOUT LIMITATION, WARRANTIES OF FITNESS OR MERCHANTABILITY, WITH RESPECT THIS PRODUCT.

