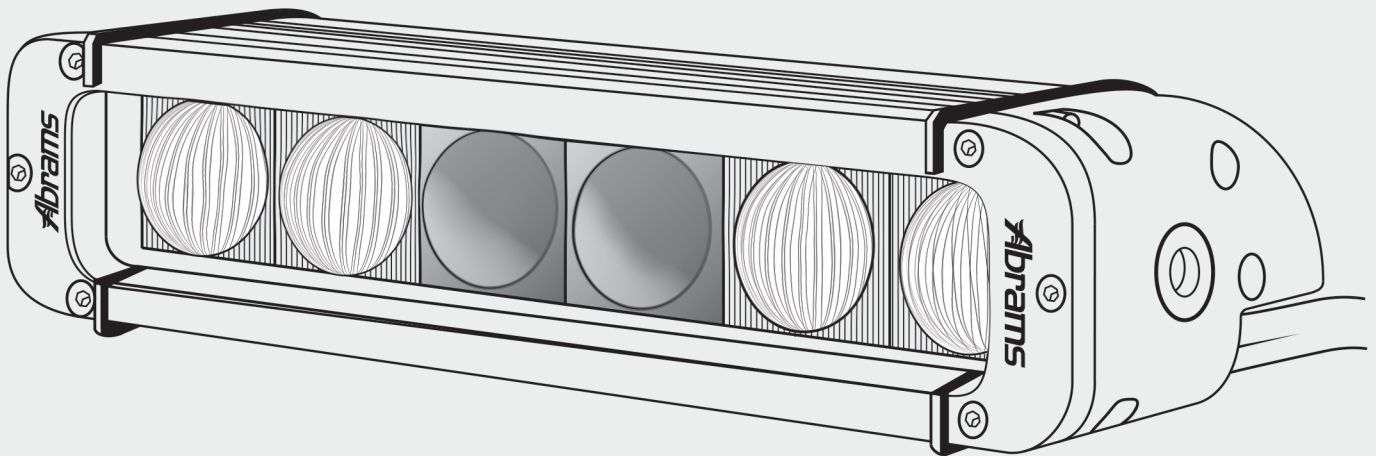




ABRAMS INSTRUCTION MANUAL
WWW.ABRAMSMFG.COM

**INSTALLATION AND CONFIGURATION MANUAL
ABRAMS OFF-ROAD SERIES LIGHTBAR**

V.1.3



OFF-ROAD SERIES LIGHTBAR

IMPORTANT! PLEASE READ THROUGH ALL PROVIDED INSTRUCTIONS AND ANY LISTED WARNINGS IN REGARDS TO PRODUCT USE.

MODEL #: OR20 / OR40 / OR60
OR120 / OR180 / OR24 / OR300

**INSTALLATION AND CONFIGURATION MANUAL
 ABRAMS OFF-ROAD SERIES LIGHTBAR**

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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 PRODUCT.

- 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.

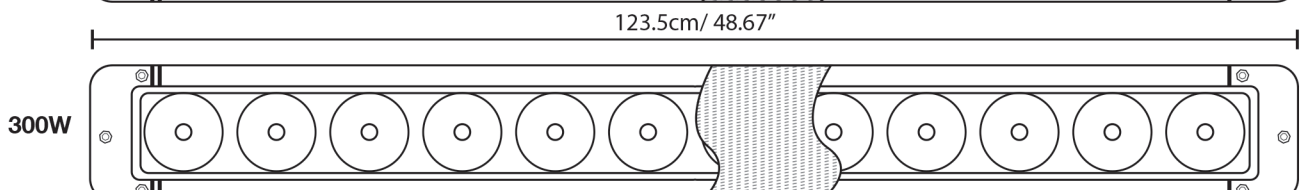
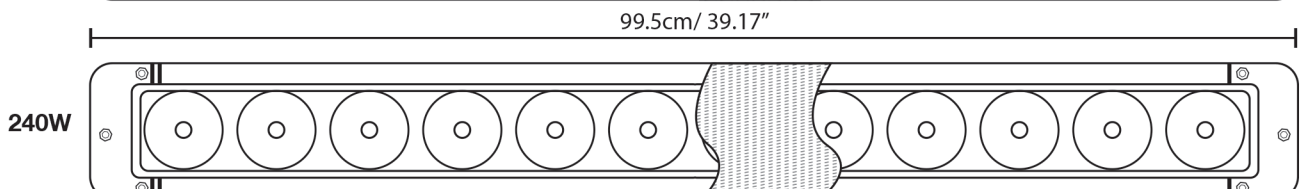
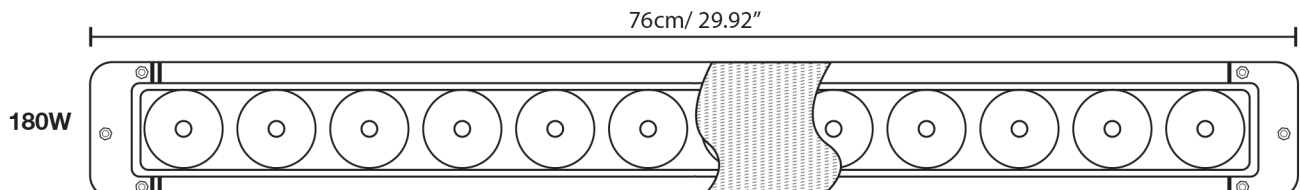
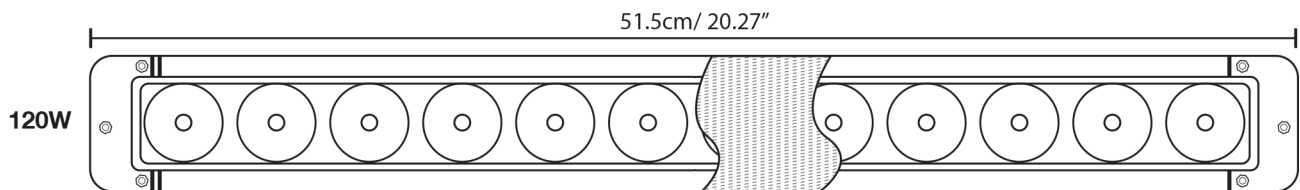
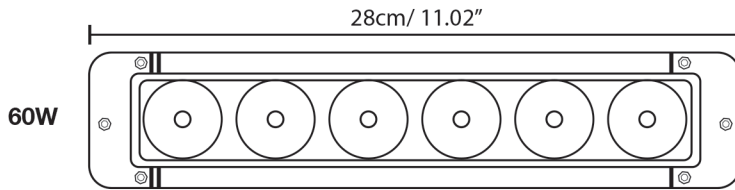
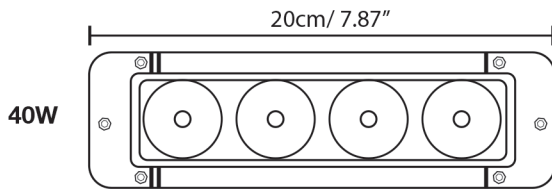
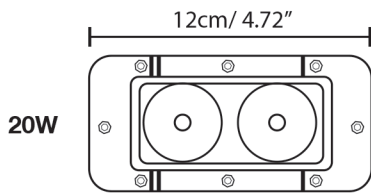
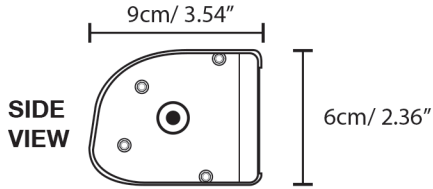
WARRANTY (5 YEAR WARRANTY)

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 TO THIS PRODUCT.



INSTALLATION AND CONFIGURATION MANUAL ABRAMS OFF-ROAD SERIES LIGHTBAR

EQUIPMENT AND DIMENSIONS



PACKAGE CONTENTS:

- ABRAMS OR SERIES LIGHTBAR
- MOUNTING ACCESSORIE KIT
- PRODUCT USER MANUAL
- RELAY KIT

IMPORTANT! PLEASE READ THROUGH ALL PROVIDED INSTRUCTIONS AND ANY LISTED WARNINGS IN REGARDS TO PRODUCT USE.

INSTALLATION AND CONFIGURATION MANUAL ABRAMS OFF-ROAD SERIES LIGHTBAR

WIRING AND FUNCTION

WIRING: CONNECTING WIRES TO THE BATTERY

WARNING! IF YOU ARE SUPPLYING YOUR OWN WIRING THAT CONNECTS TO THE POSITIVE OR NEGATIVE TERMINAL OF THE BATTERY, FUSE SIZES MUST BE SIZED ACCORDING TO THE PROVIDED FUSE TO BE CONSIDERED FUSED PROPERLY TO THE BATTERY IN ORDER TO CARRY THE LOAD.

ROUTE THE POWER CABLES BY OPENING THE WIRING SHIELD AND RUNNING THE CABLES THROUGH IT TOWARDS YOUR VEHICLE'S FIREWALL.

FOLLOW THE FACTORY WIRING HARNESS THROUGH THE FIREWALL.

IF IT IS NECESSARY TO DRILL A HOLE IN THE FIREWALL FOR THE POWER CABLES, BE SURE NO COMPONENTS WILL BE DAMAGED FROM DRILLING. AS WITH ALL HOLES THAT ARE DRILLED, FILE THE EDGES DOWN SMOOTH AND INSERT A GROMMET TO PROTECT THE CABLES.

ROUTE THE CABLE ALONG THE FACTORY WIRING HARNESS

WIRE YOUR POWER CABLES (RED WITH IN LINE FUSE (ABRAMS SUPPLIED) AND BLACK CABLE) TO YOUR BATTERY TO POWER UP YOUR LIGHT BAR.

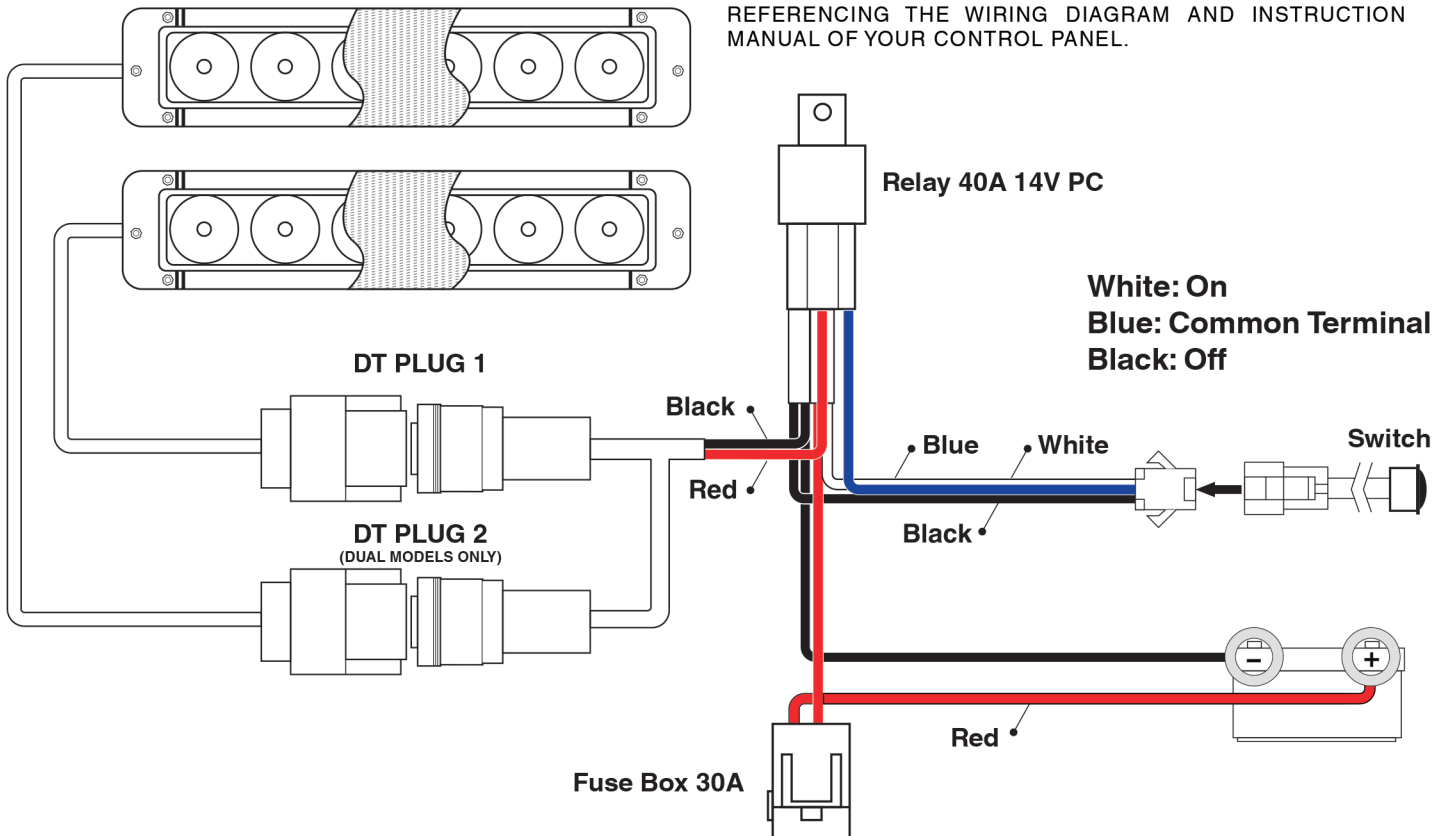
YOU WILL WANT TO ENSURE YOUR GROUNDING CABLE IS TAKEN DIRECTLY TO THE NEGATIVE TERMINAL OF YOUR BATTERY TO AVOID ANY ELECTRICAL FEEDBACK WHICH MAY DISRUPT YOUR LIGHT BAR SYSTEM.

DO NOT ALLOW THE POSITIVE (RED WIRE) AND NEGATIVE (BLACK WIRE) TO TOUCH ONE ANOTHER. THIS MAY CAUSE INJURY TO YOU AND DAMAGE YOUR EQUIPMENT BY CAUSING A SHORT IN THE UNIT THAT IS NOT COVERED UNDER THE WARRANTY.

WIRING: CONNECTING WIRES TO CONTROL BOX

THIS UNIT WILL FEATURE A POWER HARNESS WITH TWO (2) COLORED LEADS

IF YOU ARE USING YOUR OWN SWITCH BOX , WIRE THE CABLES ACCORDINGLY INTO YOUR CONTROL PANEL BY REFERENCING THE WIRING DIAGRAM AND INSTRUCTION MANUAL OF YOUR CONTROL PANEL.



IMPORTANT:

THE INSTALLATION TECHNICIAN AND OPERATOR MUST READ THIS MANUAL BEFORE STARTING INSTALLATION OR OPERATION OF YOUR NEW PRODUCT. THEY MUST HAVE A THOROUGH UNDERSTANDING OF AUTOMOTIVE SYSTEMS, ELECTRONICS AND PROCEDURES.

WARNING:

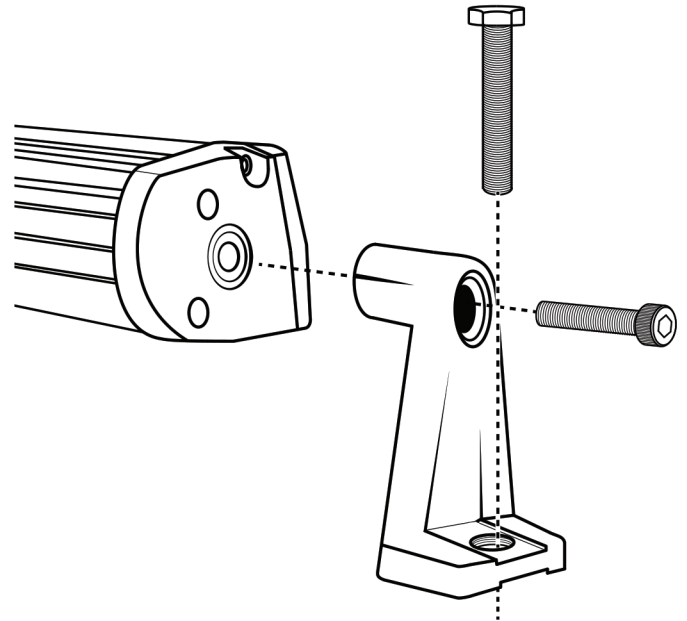
PLEASE UNDERSTAND THAT THE USER AND INSTALLER ASSUME ULTIMATE, COMPLETE AND FULL RESPONSIBILITY IN DETERMINING PROPER MOUNTING LOCATION AND POSITIONING. WHEN INSTALLING, CONSIDER A LOCATION BASED ON ITS ABILITY TO PROVIDE TOTAL SAFETY TO ALL PASSENGERS.

INSTALLATION AND CONFIGURATION MANUAL ABRAMS OFF-ROAD SERIES LIGHTBAR

INSTALLING BRACKETS

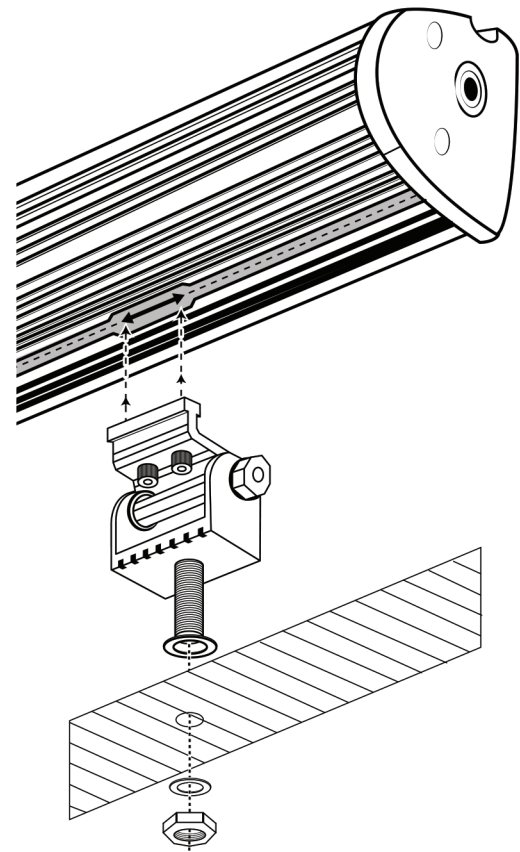
MOUNTING WITH L-SHAPED SIDE BRACKETS

1. SELECT A DESIRED MOUNTING LOCATION. MAKE SURE THERE IS AT LEAST 5" OF CLEARANCE IN ORDER FOR THE LIGHT TO FIT PROPERLY OVER THE MOUNTING LOCATION.
2. PLACE THE L-SHAPED SIDE BRACKET OVER THE DESIRED MOUNTING SURFACE.
3. MARK THE AREA WHERE THE MOUNTING HOLES ARE TO BE DRILLED. CONFIRM THAT NO VEHICLE PARTS COULD BE DAMAGED BY THE DRILLING PROCESS.
4. USING A DRILL BIT OF APPROPRIATE SIZE, DRILL A MOUNTING HOLE FOR THE HEX BOLT FOR L BRACKET TO SURFACE. THOROUGHLY DE-BURR ALL HOLE(S).
5. SECURE THE L-SHAPED SIDE BRACKET ONTO THE MOUNTING SURFACE USING THE INCLUDED MOUNTING BOLT, NUT, AND WASHER FOR L BRACKET TO SURFACE.
6. SECURE THE LIGHT UNIT ONTO THE L-SHAPED SIDE BRACKET USING THE INCLUDED BOLT, NUT, AND PLASTIC WASHER FOR L BRACKET TO UNIT,
7. ADJUST THE LIGHT UNIT TO THE DESIRED TILT ANGLE PRIOR TO TIGHTENING THE BOLTS ALL THE WAY.



MOUNTING WITH SURFACE MOUNT BASE(S)

1. PLACE THE SURFACE MOUNT BASE(S) ONTO THE LIGHT UNIT BY SLIDING THE BASE INTO THE SURFACE MOUNT SLOT.
2. SELECT A DESIRED MOUNTING LOCATION. MAKE SURE THERE IS AT LEAST 5" OF CLEARANCE IN ORDER FOR THE LIGHT TO FIT PROPERLY OVER THE MOUNTING LOCATION.
3. MAKE SURE NONE OF THE SURFACE MOUNT BASE WILL BE POSITIONED OVER THE ENTRY SLOT INTO THE SLIDE GROOVE ONCE THE LIGHT BAR IS MOUNTED TO THE DESIRED LOCATION.
4. MARK THE AREA WHERE THE MOUNTING HOLES ARE TO BE DRILLED. CONFIRM THAT NO VEHICLE PARTS COULD BE DAMAGED BY THE DRILLING PROCESS.
5. USING A DRILL BIT OF APPROPRIATE SIZE, DRILL A MOUNTING HOLE FOR THE HEX BOLT FOR SURFACE MOUNT BASE TO SURFACE. THOROUGHLY DE-BURR ALL HOLE(S).
6. SECURE THE SURFACE MOUNT BASE TO THE MOUNTING SURFACE USING THE INCLUDED MOUNTING BOLT, NUT, AND WASHER FOR SURFACE MOUNT BASE.
7. SECURE THE SURFACE MOUNT BASE ONTO THE LIGHT UNIT UTILIZING THE INCLUDED BOLTS ON THE SURFACE MOUNT BASE AND HEX KEY.
8. ADJUST THE LIGHT UNIT TO THE DESIRED TILT ANGLE PRIOR TO TIGHTENING THE HORIZONTAL BOLTS ON THE SURFACE MOUNT BASE.



**IF YOU REQUIRE ADDITIONAL INFORMATION AND/OR VIDEO AND USER GUIDES, PLEASE VISIT WWW.ABRAMSMFG.COM/SUPPORT OR CALL ABRAMS CUSTOMER SUPPORT 844.9.ABRAMS

INSTALLATION AND CONFIGURATION MANUAL ABRAMS OFF-ROAD SERIES LIGHTBAR

TROUBLE SHOOTING?

THE ABRAMS FOCUS SERIES HAS BEEN FACTORY TESTED AND APPROVED.
IF THE FUNCTIONS OF DEVICE FAIL, PLEASE CHECK THE FOLLOWINGS:

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-CIRCUITED POWER OCCURRED.
2. PLUG DEVICE ENSURE THE POWER SWITCH WHICH HAVE LED IS "ON" STATE.
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

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