



BRIGHT IS ONLY THE BEGINNING

# INSTALL GUIDE

## XB EVO HEADLIGHTS: 17-19 SUPER DUTY

LF2-503/LF2-503Y/LF2-503R



WARNING: IT IS THE INSTALLERS RESPONSIBILITY TO CONFIRM COMPLIANCE WITH STATE AND LOCAL LAWS. BY READING THIS DOCUMENT, YOU AGREE IT IS ONLY TO BE USED AS AN EDUCATIONAL GUIDE. MORIMOTO LIGHTING NOR ITS DEALERS MAKE GUARANTEES ON ANY FINISHED RESULTS, NOR ARE THEY TO BE HELD RESPONSIBLE FOR ANY DAMAGE, MISUSE, OR PERSONAL INJURIES. IF YOU ARE UNABLE TO CLEARLY UNDERSTAND AND ADAPT THE INFORMATION BELOW, PROFESSIONAL INSTALLATION IS RECOMMENDED.

IMPORTANT: IF YOUR VEHICLE IS EQUIPPED WITH ANYTHING BUT MORIMOTO OR OEM TAIL LIGHTS, SIDE MARKERS OR OTHER OEM EXTERIOR LIGHTING; YOU MAY EXPERIENCE A HYPER FLASH AND/OR PROBLEM WITH THE SEQUENTIAL SIGNAL SETTING ON THESE HEADLIGHTS. THIS IS NOT A DEFECT IN THE HEADLIGHT, AND CAUSED BY UN-MATCHED IMPEDANCE WITH YOUR ORIGINAL VEHICLE SETTINGS.



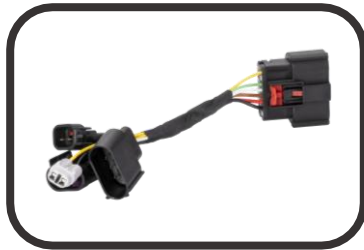
# **XB EVO HEADLIGHTS: 17-19 SUPER DUTY**

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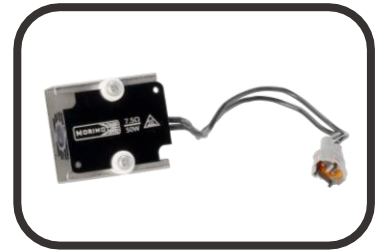
## **WHAT'S INCLUDED (ALL VERSIONS)**



**2X (PAIR) HEADLIGHT ASSEMBLIES**



**2X HALOGEN ADAPTER HARNESSSES**



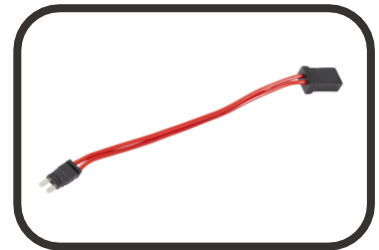
**2X MAGNET MOUNT RESISTORS**



**1X FUSE TAP**



**1X DRL HARNESS**



**1X FUSE EXTENSION**



# **XB EVO HEADLIGHTS: 17-19 SUPER DUTY**

## **WHAT'S INCLUDED (EVO AND XRGB MODEL ONLY)**



**4X PAIRS OF MODE  
SELECTORS**

## **WHAT'S INCLUDED (XRGB MODEL ONLY)**



**1x RGB CROSSOVER  
HARNESSES**

## **REQUIRED TOOLS**

- **PRY TOOL**
- **RATCHET**
- **10MM SOCKET**
- **13MM SOCKET OR WRENCH**
- **SPLIT TRIM REMOVAL TOOL**
- **T30 TORX DRIVER**



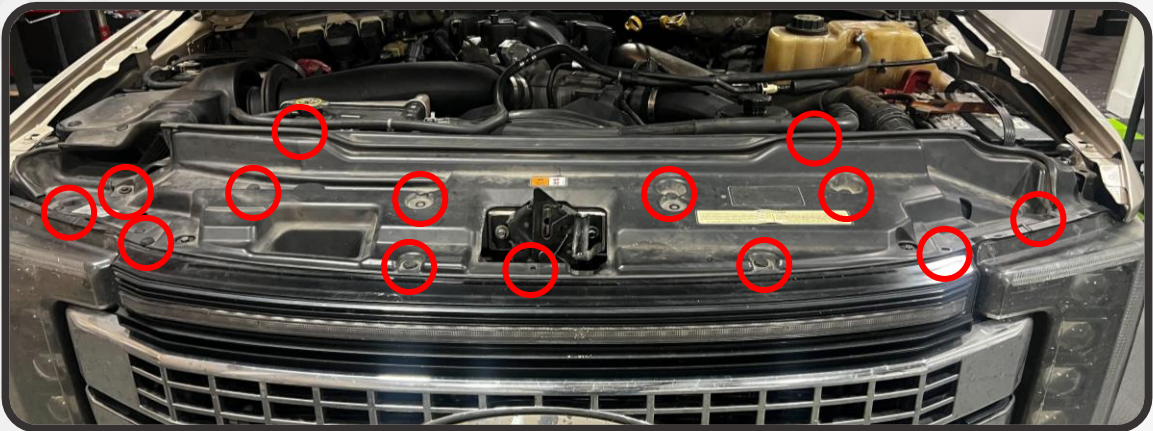
# DISASSEMBLY

THIS DOCUMENT IS MEANT TO SERVE AS A GENERAL GUIDE FOR VEHICLE DISASSEMBLY AND PRODUCT INSTALLATION. WHILE WE TRY TO COVER THE PROCESS AS THOROUGHLY AS POSSIBLE, YOUR EXPERIENCE MAY DIFFER SLIGHTLY DUE TO DIFFERENCES BETWEEN YEARS, TRIM PACKAGES, OPTIONS, OR AFTERMARKET PARTS INSTALLED

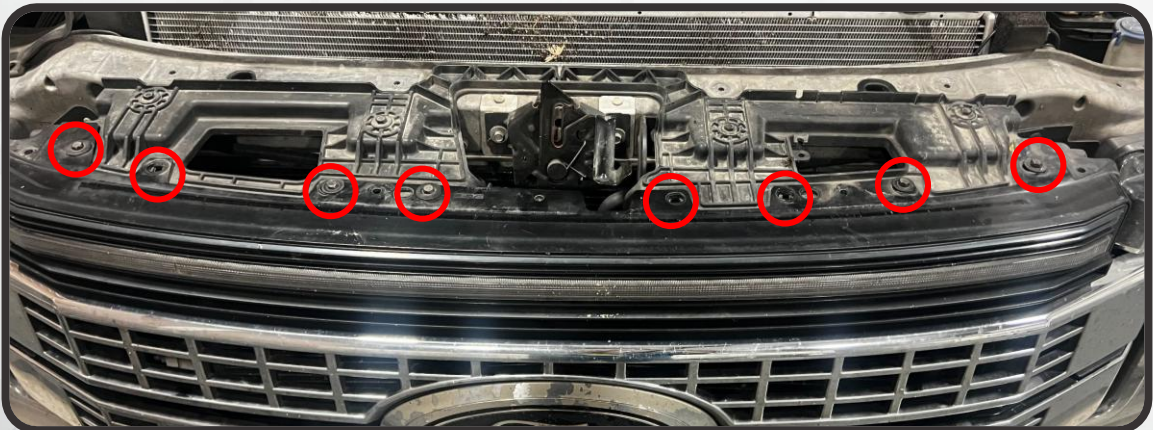
VEHICLE USED IN THIS GUIDE:

2018 FORD F250 W/ HALOGEN HEADLIGHTS

1. REMOVE THE FOURTEEN PLASTIC PUSH-CLIPS HOLDING ON THE RADIATOR COVER. DO THIS BY PRYING UP ON THE TOP PART OF THE CLIP, THEN PRY THE LOWER PORTION UP OUT OF THE HOLE



2. REMOVE THE RADIATOR COVER AND SET IT ASIDE
3. REMOVE THE EIGHT 10MM BOLTS ALONG THE TOP OF THE GRILLE



4. WITH THE BOLTS REMOVED, GENTLY, BUT DELIBERATELY, PULL THE TOP OF THE GRILLE FORWARD TO RELEASE THE CLIPS THAT HOLD IT, AND TILT IT FORWARD

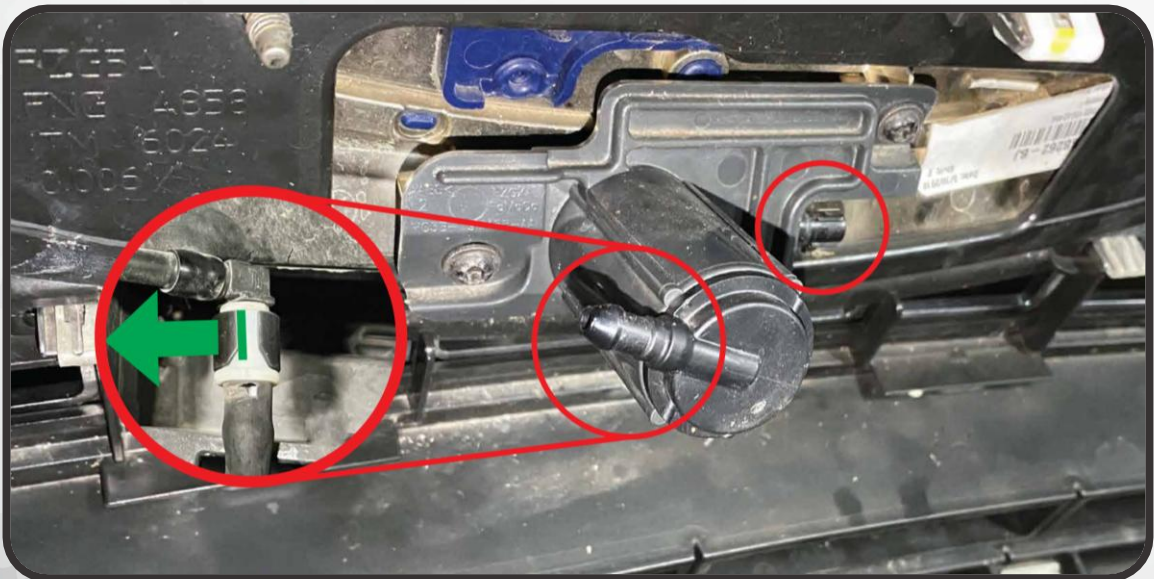


## DISASSEMBLY

5. WITH THE GRILLE TILTED FORWARD, GET A PRY TOOL AND PRESS DOWN ON THE FOUR METAL CLIPS (TWO PER SIDE) TO RELEASE THEM. AFTER RELEASING EACH CLIP, PULL THE GRILLE AWAY FROM THE TRUCK WITH LIGHT PRESSURE TO PREVENT THE CLIPS FOR LOCKING BACK INTO PLACE



6. IF YOU HAVE A FRONT CAMERA, UNPLUG THE CONNECTOR ON THE CAMERA BY PRESSING THE RELEASE TAB AND SLIDING THE CONNECTOR OFF. THEN DISCONNECT THE WASHER FLUID HOSE FITTING BY PRYING UP ON ONE SIDE OF THE LOCKING COLLAR, THEN SLIDE THE HOSE FITTING OFF (A FEW DROPS OF WASHER FLUID MAY COME OUT). IF YOU DO NOT HAVE A FRONT CAMERA, SKIP THIS STEP

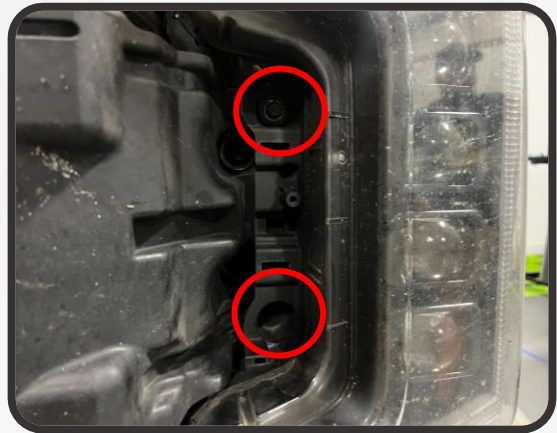


7. PULL THE GRILLE FORWARD AND REMOVE IT FROM THE TRUCK. SET IT ASIDE FOR NOW



## DISASSEMBLY

8. REMOVE THE ONE 10MM BOLT FROM THE TOP OF THE HEADLIGHT, AND THE TWO 10MM BOLTS FROM THE FRONT OF THE HEADLIGHT



9. REMOVE THE ONE 10MM BOLT (SOME TRUCKS MAY USE A 13MM BOLT) ON THE LOWER CORNER OF THE HEADLIGHT. THIS BOLT IS LOCATED BEHIND THE RUBBER SEAL IN BETWEEN THE FENDER AND BUMPER

-IF YOU ARE UNABLE TO ACCESS THE BOLT IN THIS WAY, YOU CAN ALSO ACCESS IT BY REACHING BEHIND THE BUMPER WITH A RATCHETING WRENCH. SLIGHTLY LOWERING THE BUMPER MAY ALSO HELP IN ACCESSING THE BOLT

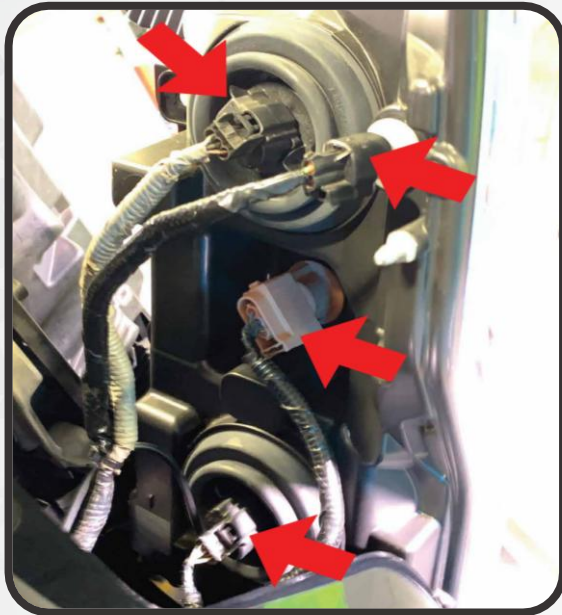


10. PULL THE HEADLIGHT FORWARD TO RELEASE IT FROM THE TRUCK. THESE HEADLIGHTS ARE LARGE, AND THE HEADLIGHT CAVITY IS TIGHT, SO IT WILL NEED TO BE TWISTED/ROTATED AS IT COMES FORWARD

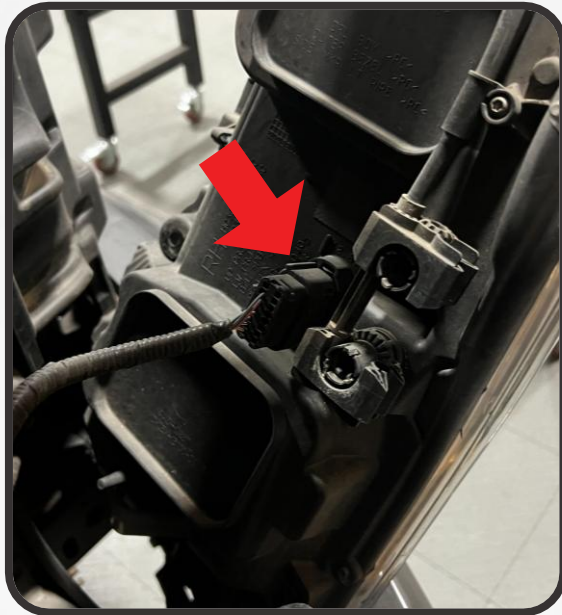


## DISASSEMBLY

- LEAN THE HEADLIGHT FORWARD SO THAT YOU CAN ACCESS THE HEADLIGHT CONNECTORS. FOR HALOGEN TRUCKS, UNPLUG EACH OF THE FOUR CONNECTIONS INDICATED BELOW. LED TRUCKS WILL HAVE ONE SINGLE CONNECTOR



HALOGEN HEADLIGHT



LED HEADLIGHT

- REMOVE THE HEADLIGHT FROM THE TRUCK AND SET IT ASIDE
- REPEAT STEPS 8 THROUGH 12 ON THE OPPOSITE HEADLIGHT

# HEADLIGHT SETUP (EVO AND XRGB MODEL ONLY)

14. WITH THE MORIMOTO XB MODE SELECTOR KEYS, YOU CAN DECIDE WHAT STYLE YOU'D LIKE FOR YOUR DAYTIME RUNNING LIGHT AND TURN SIGNAL. CHOOSE FROM THE COLORCODED KEYS SHOWN BELOW FOR YOUR DESIRED STYLE

			
<ul style="list-style-type: none"> <li>• DRL: WHITE</li> <li>• TURN SIGNAL: FADE-OFF</li> </ul>	<ul style="list-style-type: none"> <li>• DRL: WHITE</li> <li>• TURN SIGNAL: SEQUENTIAL</li> </ul>	<ul style="list-style-type: none"> <li>• DRL: AMBER</li> <li>• TURN SIGNAL: FADE-OFF</li> </ul>	<ul style="list-style-type: none"> <li>• DRL: AMBER</li> <li>• TURN SIGNAL: SEQUENTIAL</li> </ul>

15. INSTALL THE MODE SELECTOR FOR YOUR PREFERRED MODE ONTO THE 3-PIN CONNECTOR ON THE BACK OF EACH HEADLIGHT. THIS CAN ALWAYS BE CHANGED AFTER INSTALL IF DESIRED. MAKE SURE THE VEHICLE AND HEADLIGHTS ARE OFF WHEN CHANGING MODE SELECTORS

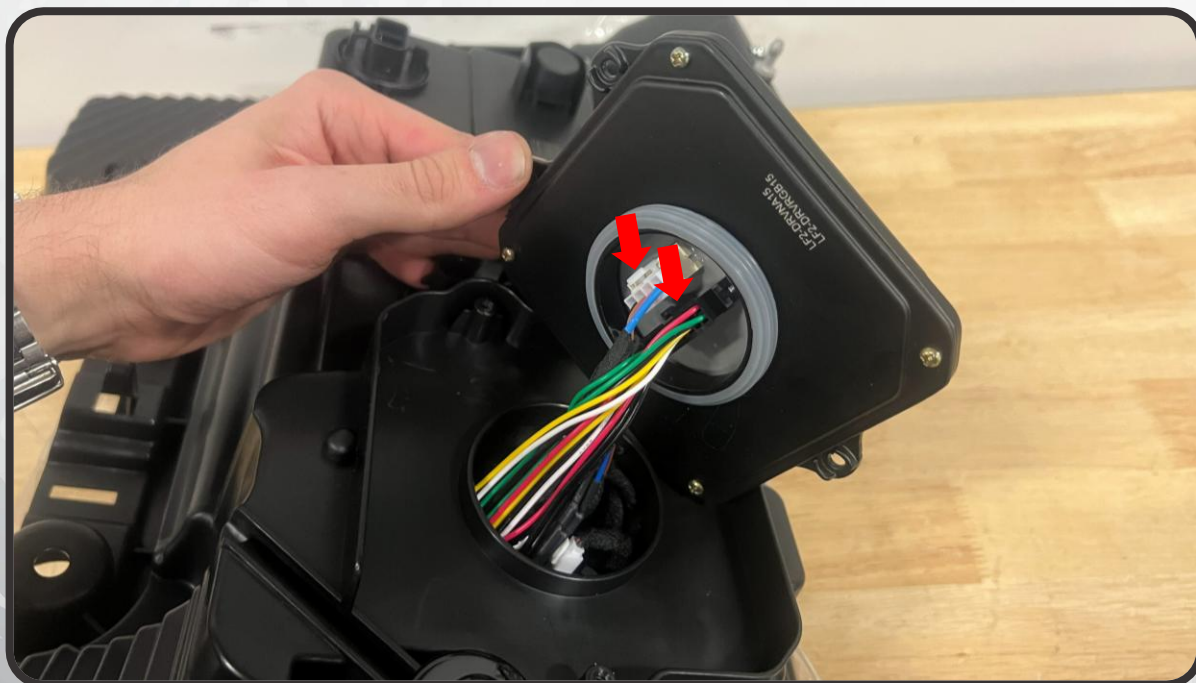


## HEADLIGHT SETUP

16. IF YOU HAVE PURCHASED THE MORIMOTO XB SUPERCHARGED HEADLIGHT DRIVERS (SOLD SEPARATELY, FOR OFFROAD USE ONLY), REMOVE THE THREE PHILLIPS HEAD SCREWS SECURING THE STANDARD HEADLIGHT DRIVER TO THE BACK OF THE HEADLIGHT

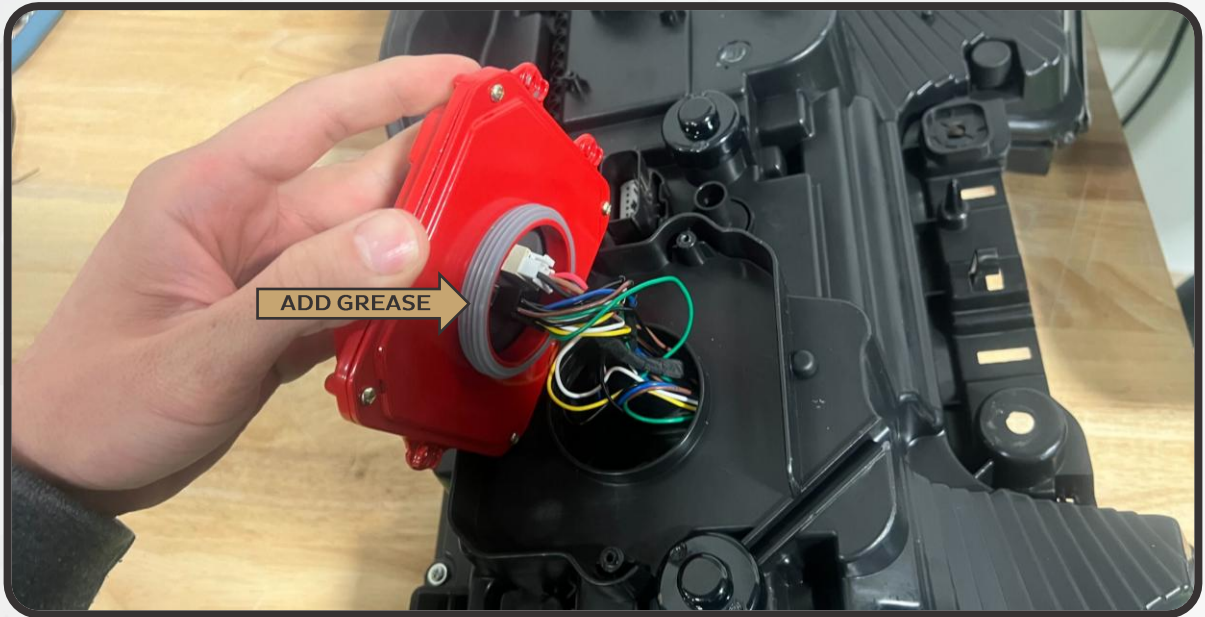


17. PULL THE DRIVER OFF OF THE HOUSING. DEPRESS THE CLIP ON EACH OF THE DRIVER CONNECTORS AND PULL TO DISCONNECT THE DRIVER FROM THE INTERNAL HEADLIGHT WIRING

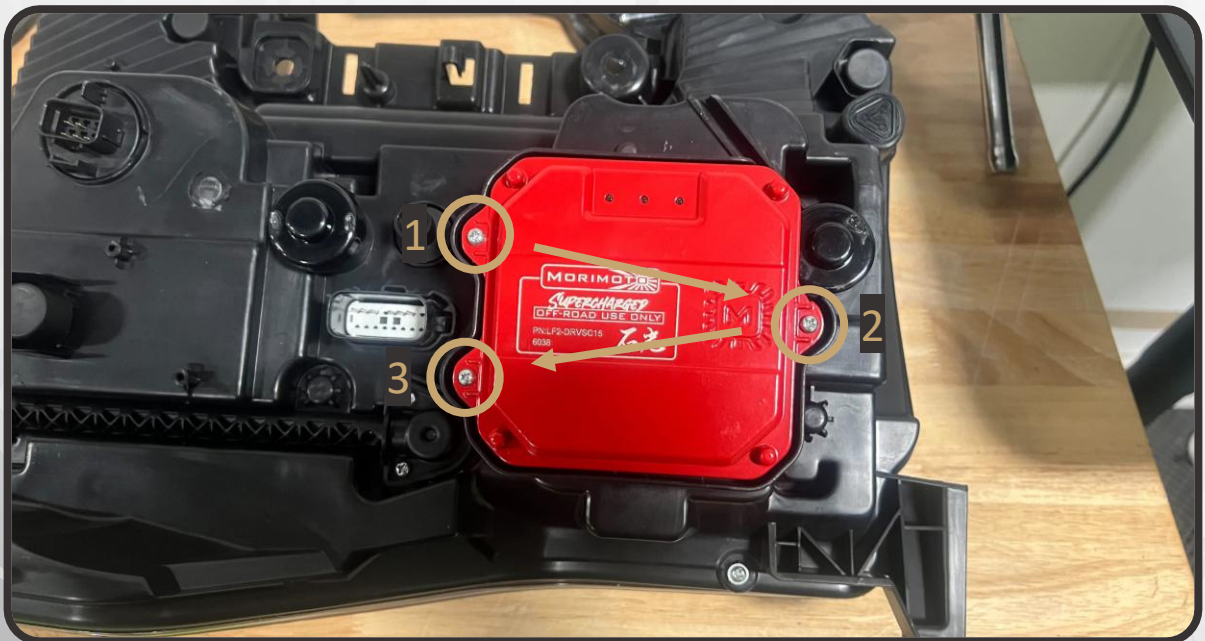


# HEADLIGHT SETUP

18. CONNECT THE NEW SUPERCHARGED DRIVER TO THE INTERNAL HEADLIGHT WIRING, MAKING SURE THE TAB ON EACH OF THE CONNECTOR'S CLIPS SECURELY INTO PLACE. APPLY A THIN LAYER OF THE INCLUDED GREASE TO THE OUTER EDGE OF THE SEAL ON THE NEW DRIVER

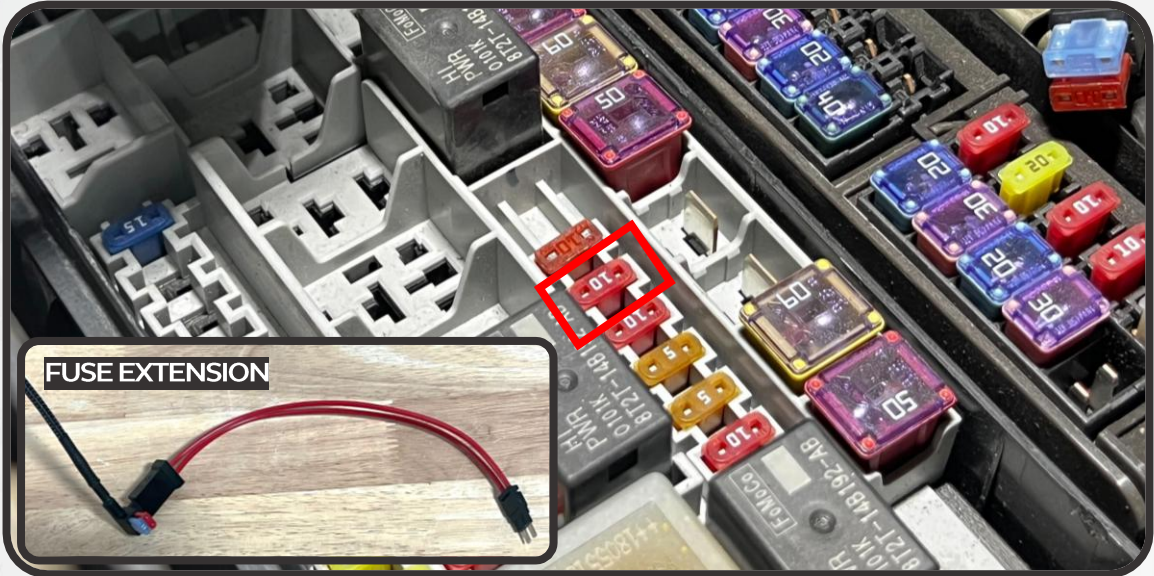


19. PRESS THE SUPERCHARGED DRIVER STRAIGHT INTO THE MOUNTING LOCATION, MAKING SURE THE RUBBER SEAL IS SEATED PROPERLY AND DOES NOT GET PINCHED OR BUNCHED UP. SECURE THE DRIVER TO THE HOUSING USING THE ORIGINAL THREE PHILLIPS HEAD SCREWS, HAND TIGHTENING THEM DOWN IN A STAR PATTERN TO ENSURE THE DRIVER SEATS EVENLY AGAINST THE HOUSING

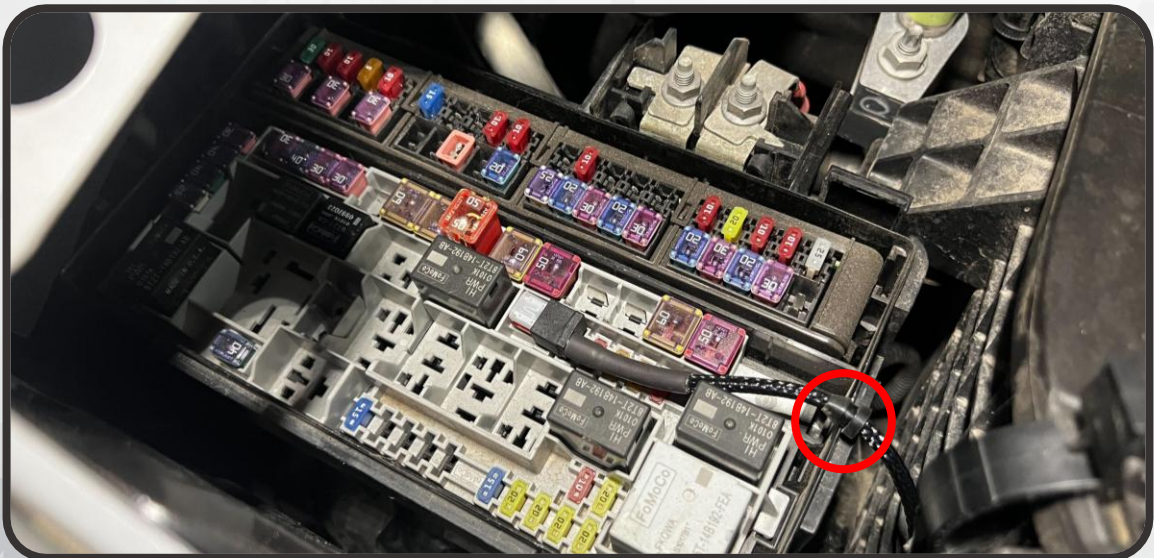


# WIRING

- 20. LOCATE THE FUSE BOX LOCATED UNDER THE HOOD ON THE PASSENGER SIDE BY THE FIREWALL. OPEN THE LID TO THE FUSE BOX AND LOCATE AND REMOVE THE 10A FUSE FROM SLOT #34, AND INSERT THE FUSE TAP INTO THAT SLOT. IF YOU ENCOUNTER ISSUES FITTING THE FUSE TAP DUE TO THE SURROUNDING RELAYS, A FUSE EXTENSION IS ALSO PROVIDED



- 21. ROUTE THE HARNESS OUT OF THE FUSE BOX. USING A DRILL WITH A 5.5MM/7/32" DRILL BIT OR A SMALL CUTTING TOOL, MAKE A NOTCH IN THE SIDE WALL OF THE FUSE BOX LID SO THAT THE LID CAN CLOSE OVER THE GROMMET ON THE DRL FUSE TAP WIRE

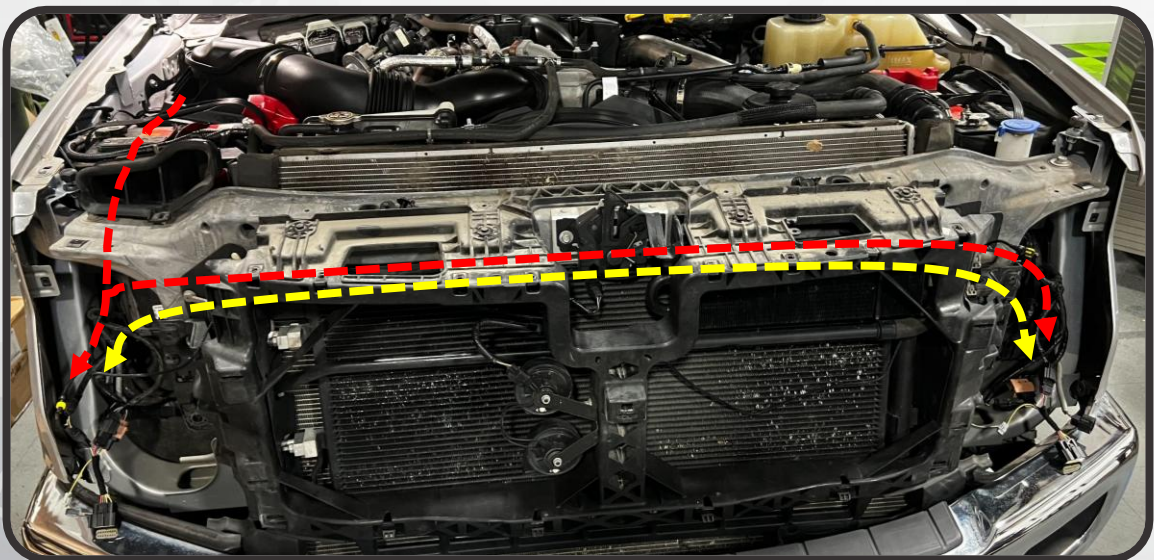


## WIRING

22. CONNECT THE SECOND-LONGEST END OF THE DRL HARNESS TO THE FUSE TAP



23. ROUTE THE SHORTER END OF THE DRL HARNESS FORWARD TO THE PASSENGER-SIDE HEADLIGHT CAVITY, AND THE LONGER END ACROSS THE RADIATOR SUPPORT TO THE DRIVER-SIDE HEADLIGHT CAVITY
- IF YOU ARE INSTALLING THE XRGB MODEL, TAKE THIS TIME TO ALSO ROUTE THE INCLUDED RGB CROSSOVER HARNESS BETWEEN THE TWO HEADLIGHT CAVITIES, FOLLOWING THE SAME ROUTING AS THE DRL HARNESS



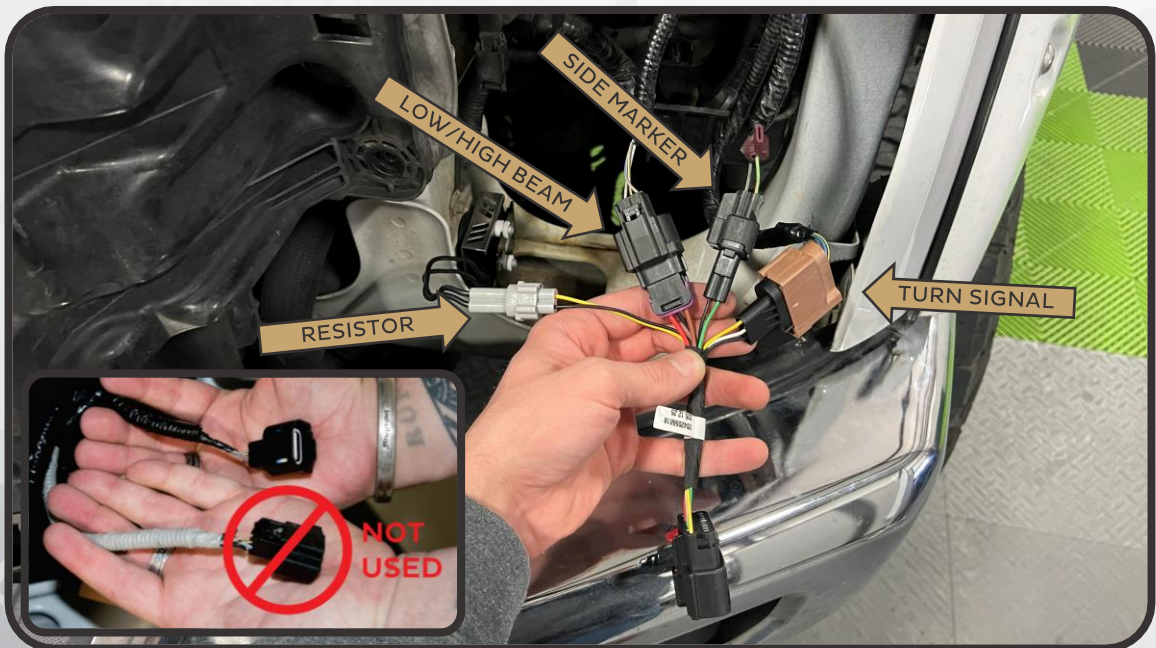
# WIRING

IF YOUR TRUCK WAS ORIGINALLY EQUIPPED WITH FACTORY HALOGEN HEADLIGHTS, FOLLOW THE STEPS BELOW. IF YOUR TRUCK WAS ORIGINALLY EQUIPPED WITH FACTORY LED HEADLIGHTS, SKIP AHEAD TO STEP 26 ON THE NEXT PAGE STEP

- 24. ATTACH ONE OF THE PROVIDED MAGNET-MOUNT RESISTORS INTO EACH HEADLIGHT CAVITY. MAKE SURE IT IS OUT OF THE WAY OF THE HEADLIGHT ASSEMBLY

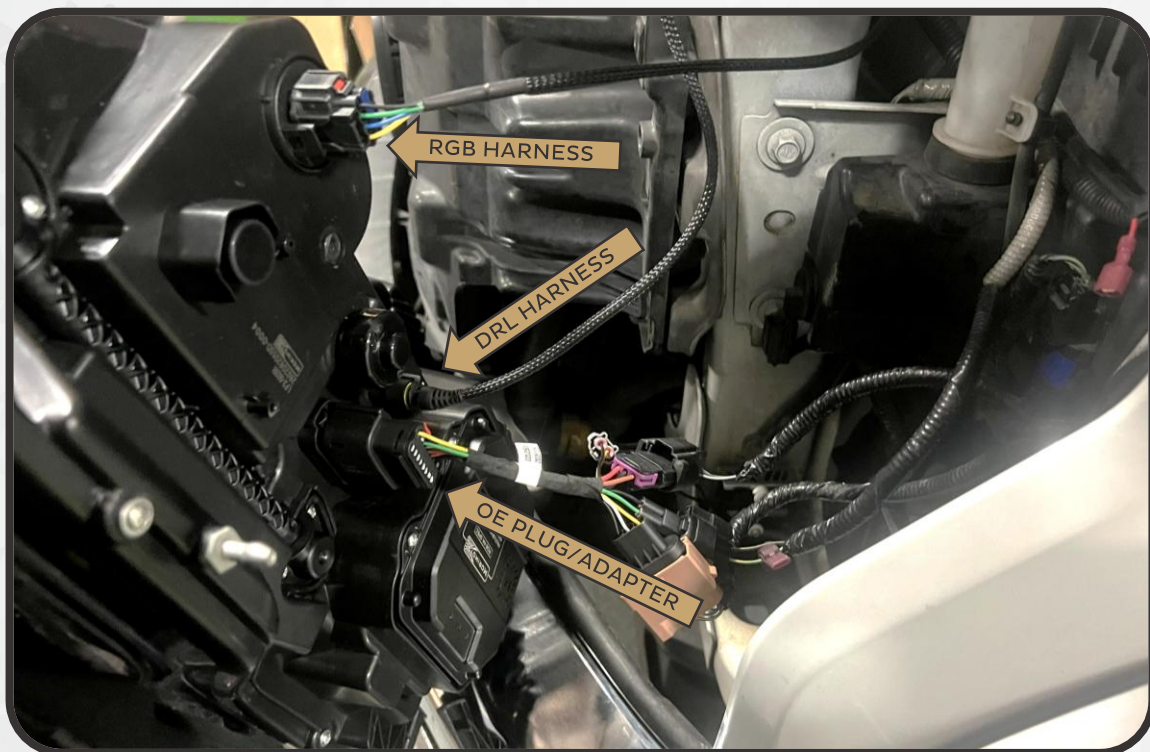


- 25. INSTALL THE HALOGEN INPUT ADAPTER HARNESS ONTO THE SIDE MARKER CONNECTOR, TURN SIGNAL CONNECTOR, AND THE LOW BEAM CONNECTOR, AS SHOWN BELOW, ON EACH SIDE OF THE TRUCK. THERE ARE TWO H13 LOW/HIGH BEAM CONNECTORS PER SIDE. USE THE H13 CONNECTOR WITH THE BLACK WIRE LOOM AND NOT THE ONE WITH THE GREY LOOM, AS INDICATED



## HEADLIGHT INSTALLATION

26. LIFT ONE OF THE NEW HEADLIGHT ASSEMBLIES UP TO THE HEADLIGHT CAVITY OF THE VEHICLE. CONNECT THE DRL HARNESS AND EITHER YOUR FACTORY HEADLIGHT CONNECTOR (OE LED TRUCKS), OR THE INPUT ADAPTER HARNESS (OE HALOGEN TRUCKS), TO THE BACK OF THE HEADLIGHT HOUSING
  - IF YOU ARE INSTALLING THE XRGB MODEL, CONNECT THE RGB CROSSOVER HARNESS AS WELL



27. SLIDE THE HEADLIGHT ONTO THE VEHICLE, ENSURING THAT NONE OF THE WIRING IS PINCHED IN THE PROCESS. SECURE THE HEADLIGHT TO THE TRUCK USING THE FACTORY HARDWARE.
28. REPEAT STEPS 26 AND 27 ON THE OPPOSITE SIDE OF THE VEHICLE



# HEADLIGHT INSTALLATION

## 29. TEST AND CONFIRM THAT ALL FUNCTIONS ARE WORKING PROPERLY



DAYTIME  
RUNNING  
LIGHT



PARKING  
LIGHT



TURN SIGNAL



LOW BEAM



HIGH BEAM

- THERE ARE THREE LEDS ON THE BACK OF THE LED DRIVER THAT INDICATE WHEN POWER IS BEING RECEIVED BY THE HEADLIGHT. IF ANY OF THESE INDICATOR LIGHTS ARE NOT ILLUMINATED WHEN THE CORRESPONDING FUNCTION SHOULD BE POWERED, RECHECK YOUR CONNECTIONS AND RELEVANT FUSES



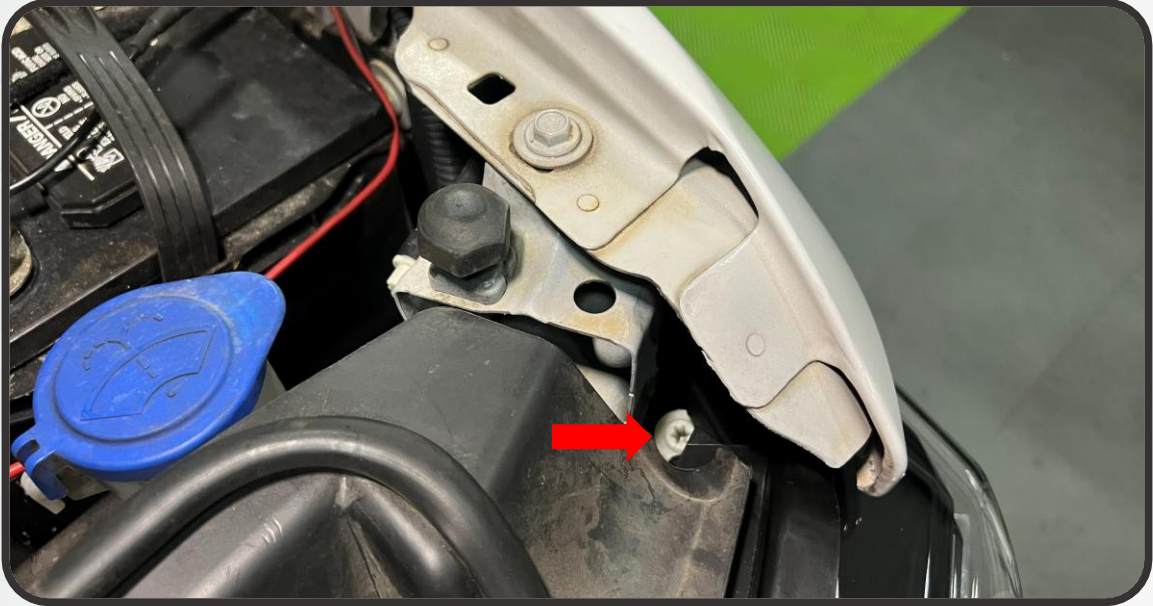
- GREEN – LOW BEAM
- BLUE – HIGH BEAM
- RED – FUSE TAP

30. REASSEMBLE THE FRONT OF THE VEHICLE IN THE REVERSE ORDER OF DISASSEMBLY

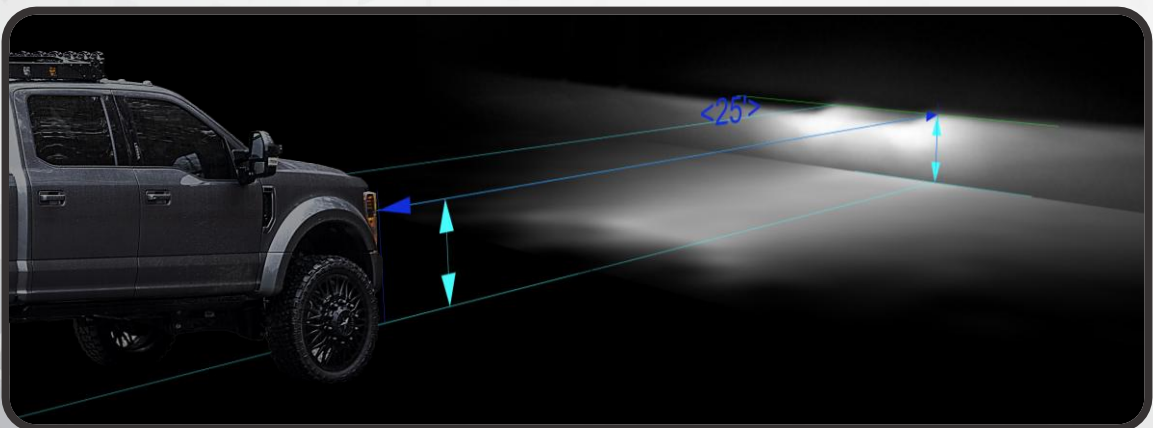
31. REINSTALL THE RADIATOR COVER THE SAME WAY YOU REMOVED IT, SECURING THE FOURTEEN PLASTIC PUSH CLIPS

# HEADLIGHT AIMING INSTRUCTIONS

32. USE THE ADJUSTERS SHOW BELOW AND A T30 TORX DRIVER TO ADJUST THE VERTICAL AIM OF THE HEADLIGHTS



33. WITH THE VEHICLE PARKED ON LEVEL GROUND, 25' FROM A WALL, MEASURE THE DISTANCE FROM THE GROUND TO THE OPTICAL CENTER MARK ON THE HEADLIGHT (THE CIRCULAR MARK BETWEEN THE TOP TWO PROJECTORS). FOLLOW THE INSTRUCTIONS BELOW TO PROPERLY ALIGN YOUR HEADLIGHTS' TOP LOW BEAM CUTOFF (THE UPPER HORIZONTAL EDGE OF THE LOW BEAM). REPEAT THIS PROCESS FOR EACH PROJECTOR
- IF THE DISTANCE FROM THE GROUND TO THE OPTICAL CENTER IS LESS THAN 34.5", ADJUST THE TOP OF THE HEADLIGHT CUTOFF TO THE SAME HEIGHT AS THE HEADLIGHT MEASUREMENT YOU TOOK
  - IF THE HEIGHT IS BETWEEN 35"-39", ADJUST THE CUTOFF TO 2" BELOW YOUR HEADLIGHT MEASUREMENT
  - IF THE HEIGHT IS GREATER THAN 39.5", ADJUST THE CUTOFF TO 3" BELOW YOUR HEADLIGHT MEASUREMENT



# LENS HEATER ACTIVATION (XB EVO MODEL ONLY)

THE HEATING SYSTEM HAS BEEN DESIGNED TO MITIGATE SNOW AND ICE BUILDUP ON THE FRONT LENSES OF YOUR HEADLIGHTS WHILE DRIVING IN INCLEMENT CONDITIONS. WHILE IT MAY ACT AS AN AID, IT WAS NOT DESIGNED TO DEFROST/MELT HEAVY BUILDUP FROM AN OVERNIGHT SNOWSTORM.

AS A BASIC REQUIREMENT: IT WILL ONLY ACTIVATE IF THE AMBIENT EXTERNAL TEMPERATURE SENSOR READS AT/BELOW 5°C (41°F). IF IT'S TOO WARM OUTSIDE, THE HEATING ELEMENTS WILL NOT RUN TO AVOID CREATING EXCESS/UNNECESSARY HEAT WITHIN THE HOUSINGS.

TO ENABLE THE SYSTEM, FOLLOW THE STEPS OUTLINED BELOW:

WITH THE VEHICLE RUNNING (AND AFTER THE WELCOME SEQUENCE HAS COMPLETED) FLASH YOUR HIGH BEAMS 4 TIMES WITHIN 4 SECONDS. THE HEATING SYSTEM IS NOW AWAKE: THE HIGH BEAMS WILL RESPOND ONE OF TWO WAYS.

TWO FLASHES: HEATING SYSTEM FULLY ACTIVE. POWER IS ACTIVELY BEING DELIVERED TO THE HEATING ELEMENTS AND CONVECTION FANS.

ONE FLASH: REQUEST ACKNOWLEDGED, BUT SOME CONDITION\* HAS NOT BEEN MET. SYSTEM IS IN AUTOMATIC STANDBY FOR OPERATION IF ALL CONDITIONS ARE MET.

ONCE ACTIVATED: THE SYSTEM IS AUTOMATICALLY MONITORED THROUGH A CLOSED-LOOP CONTROL SYSTEM TO MAINTAIN AN IDEAL TEMPERATURE TO KEEP THE FRONT LENS CLEAR. IT WILL TURN ON/OFF AS NECESSARY UNTIL YOU TURN THE IGNITION OFF COMPLETELY OR MANUALLY DISABLE THE HEATER. FOR EACH IGNITION KEY CYCLE, THE DEFAULT STATE OF THE HEATING SYSTEM IS OFF UNTIL REQUESTED ON.

MANUAL DISABLING: JUST FLASH THE HIGH BEAMS AGAIN (4X WITHIN 4 SECONDS) AND THE SYSTEM SHOULD RESPOND WITH ONE FLASH, ACKNOWLEDGING YOUR REQUEST.

\*EXAMPLES OF CONDITIONAL REQUIREMENTS:

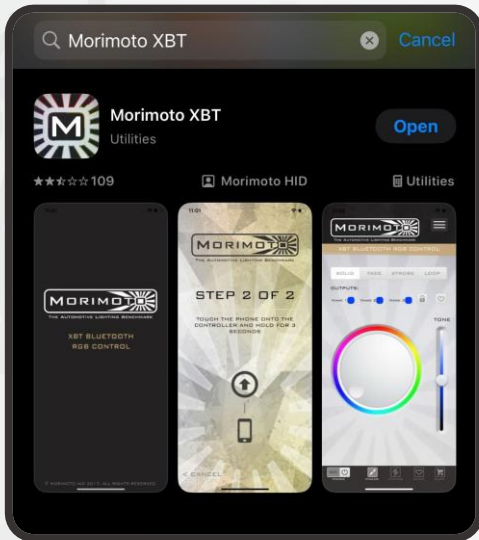
- AMBIENT TEMPERATURE NOT LOW ENOUGH (AT BELOW 5°C / 41°F)
- LENS TEMPERATURE ALREADY AT TARGET TEMPERATURE
- PRIMARY HEATING ELEMENT TEMPERATURE TOO HIGH
- INSUFFICIENT BATTERY VOLTAGE
- SYSTEM NOT REQUESTED ON

IF YOUR HEADLIGHTS ARE NOT RESPONDING TO YOUR REQUEST, THE AUTO HIGH BEAM FEATURE CAN SOMETIMES INTERFERE WITH THE LENS HEATER SYSTEM. TURN OFF THE AUTO HIGH BEAMS AND RETRY YOUR REQUEST

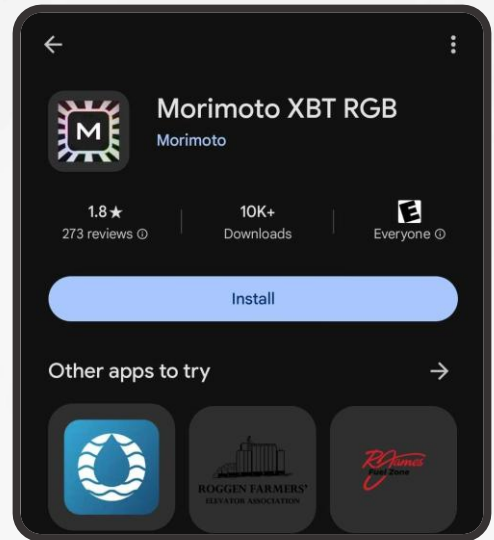


# RGB CONTROLLER PAIRING/ OPERATION (XRGB MODEL ONLY)

34. THE RGB DAYTIME RUNNING LIGHT IS CONTROLLED VIA AN APP ON YOUR SMARTPHONE. DOWNLOAD THE FREE MORIMOTO XBT APP TO GET STARTED

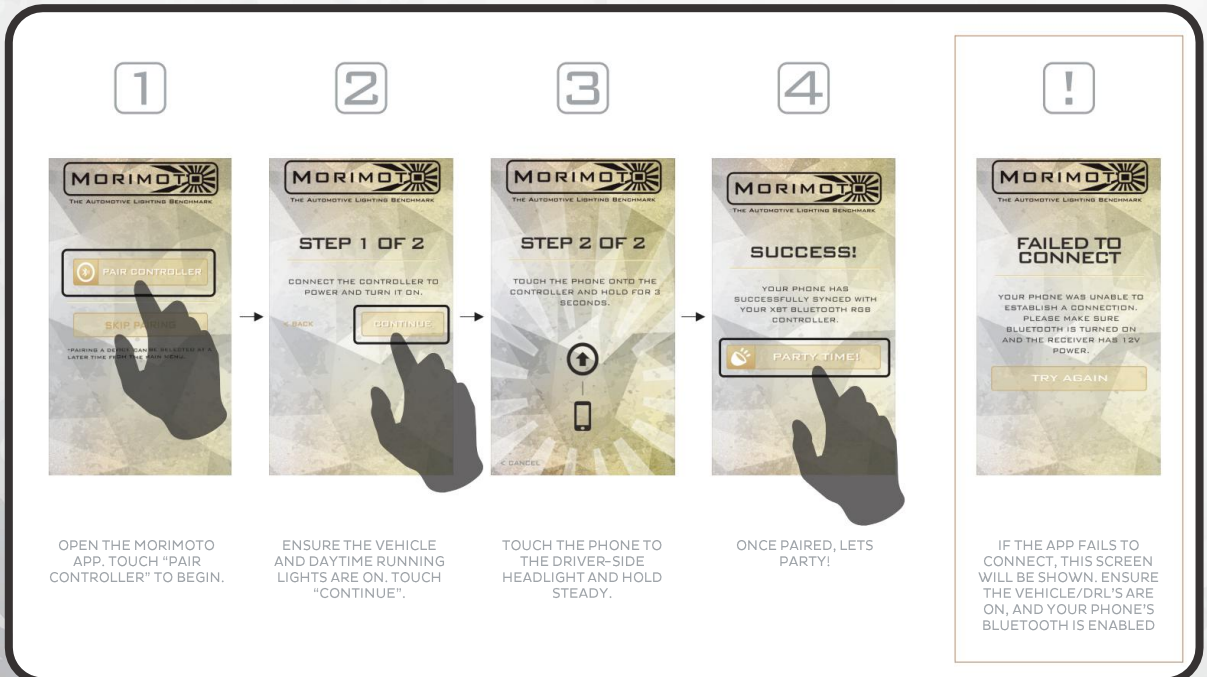


iOS



ANDROID

35. OPEN THE APP, AND FOLLOW THE PROMPTS ON THE SCREEN TO PAIR YOUR PHONE TO THE HEADLIGHTS



# RGB CONTROLLER PAIRING/ OPERATION (XRGB MODEL ONLY)

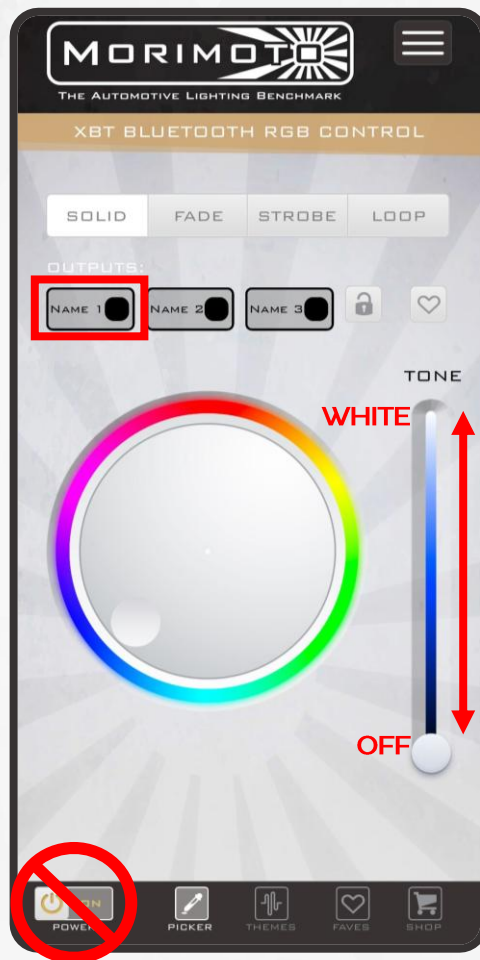
## FUNCTION NOTES

MAKE SURE YOUR APP IS SET TO "OUTPUT 1"

TO SWITCH YOUR DAYTIME RUNNING LIGHT TO WHITE, SIMPLY SLIDE THE TONE BAR ON THE RIGHTHAND SIDE OF THE SCREEN ALL THE WAY TO THE TOP

DO NOT USE THE ON/OFF TOGGLE IN THE BOTTOM LEFT TO TURN OFF THE DAYTIME RUNNING LIGHT AS THIS WILL TURN OFF THE CONTROLLER ENTIRELY. VEHICLE IGNITION WILL NEED TO BE CYCLED OFF AND BACK ON TO POWER THE CONTROLLER ON AGAIN. IF YOU WOULD LIKE TO TURN THE DAYTIME RUNNING LIGHT STRIP OFF, SLIDE THE TONE BAR ON THE RIGHTHAND SIDE OF THE SCREEN ALL THE WAY TO THE BOTTOM

THE CONTROLLER IS DESIGNED SO THAT WHEN THE VEHICLE IS TURNED ON, THE DAYTIME RUNNING LIGHT WILL DEFAULT TO THE COLOR IT WAS LAST SET TO



# **XB EVO HEADLIGHTS: 17-19 SUPER DUTY**



**- ENJOY YOUR NEW MORIMOTO XB EVO HEADLIGHTS! -**

