



BRIGHT IS ONLY THE BEGINNING

INSTALL GUIDE

XB EVO HEADLIGHTS: 20-22 SUPER DUTY

LF2-508/LF2-508Y/LF2-508R



WARNING: IT IS THE INSTALLER'S 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 TAILLIGHTS, SIDE MARKERS OR OTHER OEM EXTERIOR LIGHTING; YOU MAY EXPERIENCE A HYPER FLASH AND/OR PROBLEMS 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.



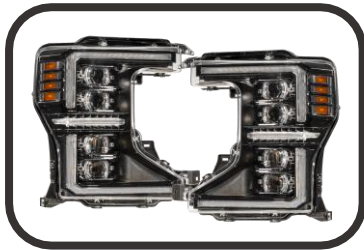
XB EVO HEADLIGHTS: 20-22 SUPER DUTY

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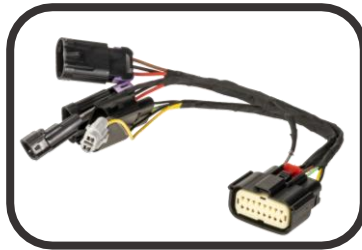
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MODEL ONLY)	

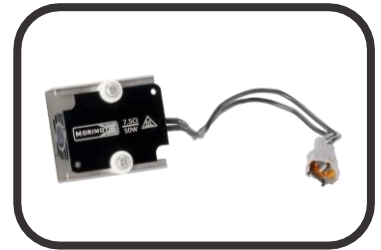
WHAT'S INCLUDED (ALL VERSIONS)



2X (PAIR) HEADLIGHT ASSEMBLIES



2X HALOGEN ADAPTER HARNESSSES



2X MAGNET MOUNT RESISTORS



1X FUSE TAP



1X DRL HARNESS



XB EVO HEADLIGHTS: 20-22 SUPER DUTY

WHAT'S INCLUDED (EVO AND XRGB MODEL ONLY)



**4X PAIRS OF MODE
SELECTORS**



**2X MODE SELECTOR
EXTENSIONS**

WHAT'S INCLUDED (XRGB MODEL ONLY)



**1x RGB CROSSOVER
HARNESS**

OPTIONAL ADD-ONS (SOLD SEPARATELY)



**2X SUPERCHARGED
LED DRIVERS**

REQUIRED TOOLS

- RATCHET
- 10MM SOCKET
- 13MM SOCKET
- T30 TORX DRIVER
- TRIM REMOVAL PRY TOOL



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

VEHICLES USED IN THIS GUIDE:

2020 F250 PLATINUM WITH OE LED HEADLIGHTS

2020 F350 LARIAT WITH OE HALOGEN HEADLIGHTS

1. REMOVE THE FOURTEEN (SIXTEEN ON SOME MODELS) PLASTIC PUSH-CLIPS SECURING 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 SIX 10MM BOLTS (INDICATED RED) AND TWO 10MM NUTS (INDICATED YELLOW) ALONG THE TOP OF THE GRILLE



DISASSEMBLY

IDENTIFY YOUR STOCK STYLE GRILLE BELOW:

FOR TYPE 1, FOLLOW THE INSTRUCTIONS BELOW. FOR TYPE 2, SKIP AHEAD TO PAGE 6/STEP 6



TYPE 1: BLACK PLASTIC BOLT COVERS



TYPE 2: SEPARATE LOWER CHROME TRIM

TYPE 1 REMOVAL PROCESS

4. USE A PRY TOOL TO PRY THE BOLT COVER TOWARDS THE MIDDLE OF THE GRILLE. REPEAT THIS ON THE OTHER SIDE OF THE GRILLE



5. WITH THE COVERS REMOVED, REMOVE THE 10MM BOLT LOCATED UNDER EACH COVER



-PROCEED TO STEP 9 ON PAGE 7-



DISASSEMBLY

TYPE 2 REMOVAL PROCESS

6. TO REMOVE THE LOWER CHROME TRIM ON THE GRILLE, PRY OUT ON THE END OF THE TRIM PANEL TO RELEASE THE CLIPS SECURING IT. THESE CLIPS CAN BE TOUGH, AND IT MAY HELP TO ALSO USE A PICK OR THIN PRY TOOL OVER THE TOP OF THE TRIM TO PRESS DOWN ON THE TABS AND RELEASE THEM WHILE PRYING OUT ON THE SIDE



7. WITH A PLASTIC PRY TOOL CAREFULLY WORK YOUR WAY ACROSS THE CHROME TRIM PRYING IT AWAY FROM THE GRILLE, RELEASING ALL OF THE CLIPS SECURING IT. REMOVE THE TRIM FROM THE VEHICLE AND SET IT ASIDE



DISASSEMBLY

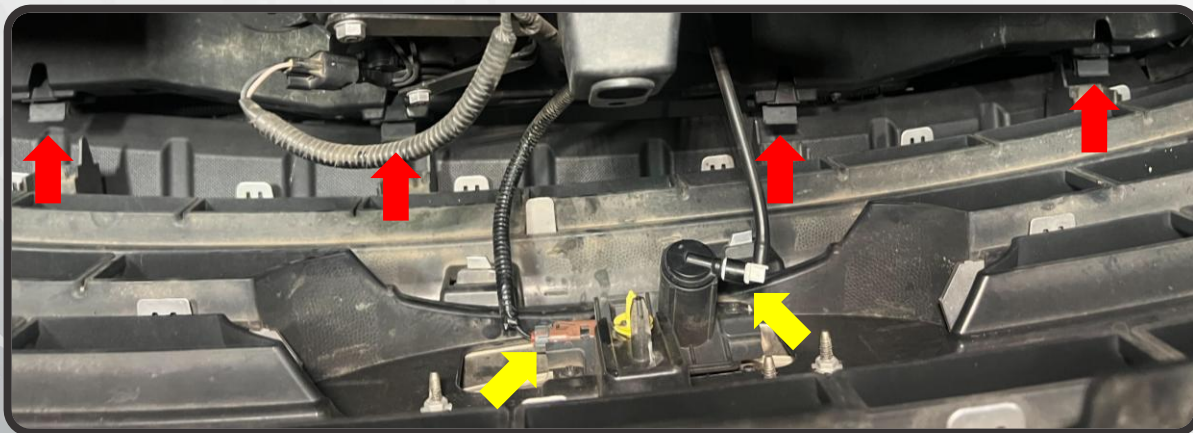
8. WITH THE TRIM REMOVED, REMOVE THE TWO (ONE PER SIDE) 10MM BOLTS LOCATED BEHIND IT



9. FIRMLY PULL THE GRILLE FORWARD FROM THE INDICATED POSITIONS TO RELEASE THE TOP OF GRILLE ASSEMBLY FROM THE TRUCK



10. WITH THE GRILLE ANGLED FORWARD, TAKE A FLAT SCREWDRIVER AND PRESS DOWN ON THE FOUR METAL CLIPS (INDICATED RED) TO RELEASE THE BOTTOM OF THE GRILLE. DISCONNECT THE FRONT CAMERA AND CAMERA WASHER HOSE AS WELL IF EQUIPPED (INDICATED YELLOW). THE GRILLE CAN NOW BE REMOVED FROM THE TRUCK



DISASSEMBLY

11. REMOVE THE ONE 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 CAN ALSO HELP IN ACCESSING THE BOLT



12. REMOVE THE TWO 10MM BOLTS ON THE TOP OF THE HEADLIGHT

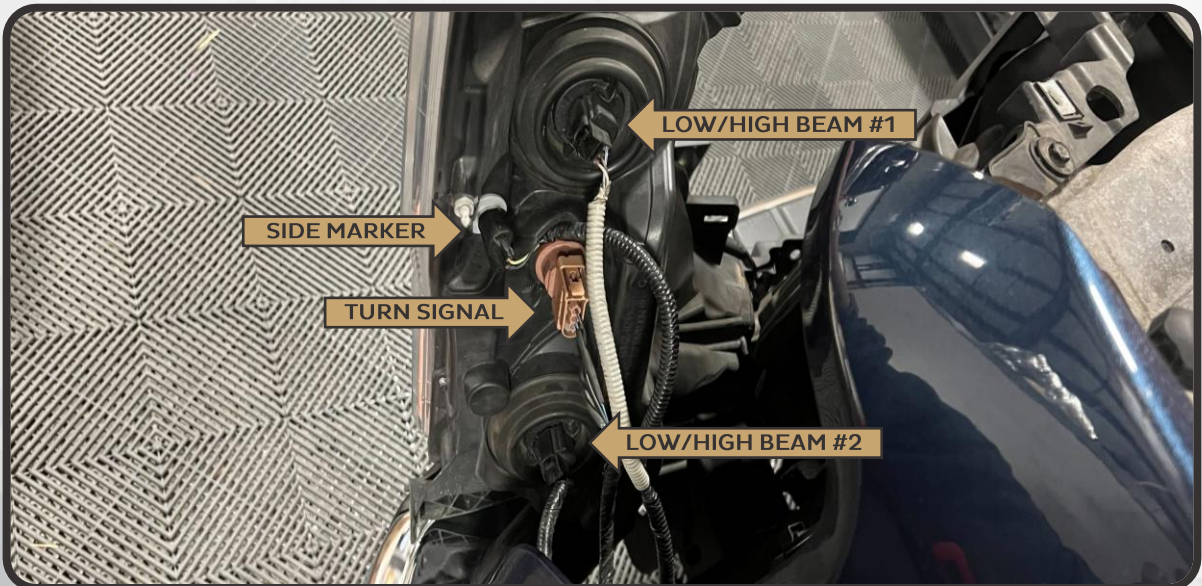


DISASSEMBLY

13. LIFT UP ON THE TAB ON TOP THE HEADLIGHT AND ROCK THE ASSEMBLY SLIGHTLY FORWARD. THESE HEADLIGHTS ARE LARGE, AND THE HEADLIGHT CAVITY IS TIGHT, SO IT WILL NEED TO BE TWISTED/ROTATED AS IT COMES OUT. WE FIND IT WORKS BEST TO MOVE THE HEADLIGHT AS FAR DOWN IN THE CAVITY AS YOU CAN, THEN ROCK THE HEADLIGHT FORWARD AND LIFT IT OUT OF THE TRUCK



14. DISCONNECT ALL WIRING FROM THE BACK OF THE HEADLIGHT (MAY VARY BETWEEN MODELS) AND SET THE HEADLIGHT ASSEMBLY ASIDE



15. REPEAT STEPS 11-14 ON THE OPPOSITE SIDE

HEADLIGHT SETUP

16. 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 (NOT APPLICABLE ON XB EVO HYBRID HEADLIGHTS)

			
• DRL: WHITE • TURN SIGNAL: FADE-OFF	• DRL: WHITE • TURN SIGNAL: SEQUENTIAL	• DRL: AMBER • TURN SIGNAL: FADE-OFF	• DRL: AMBER • TURN SIGNAL: SEQUENTIAL

17. 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. IF YOU DO PLAN TO CHANGE MODE SELECTOR KEYS LATER, AND WOULD LIKE TO MAKE THE CONNECTOR EASIER TO ACCESS AFTER INSTALL, CONNECT THE INCLUDED EXTENSION HARNESS WHICH CAN BE ROUTED TO THE ENGINE BAY DURING INSTALL

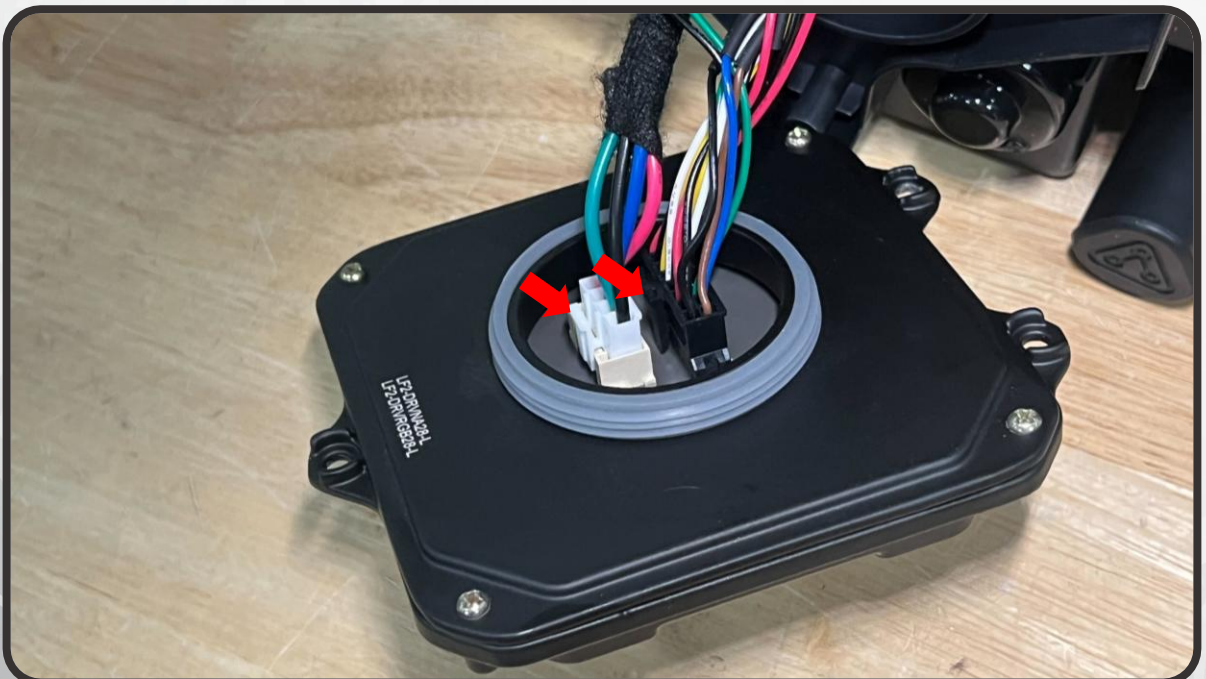


HEADLIGHT SETUP

18. 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

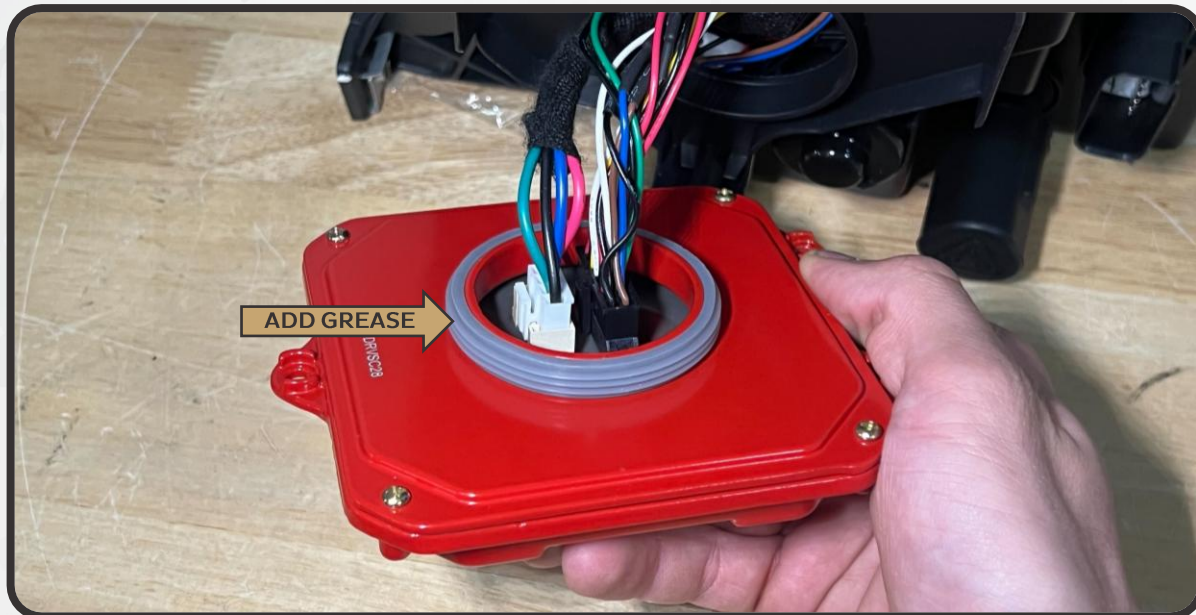


19. PULL THE DRIVER OFF OF THE HOUSING. DEPRESS THE CLIP ON EACH OF THE DRIVER CONNECTORS AND PULL TO DISCONNECT THE DRIVER FROM THE INTERNAL HEADLIGHT WIRING

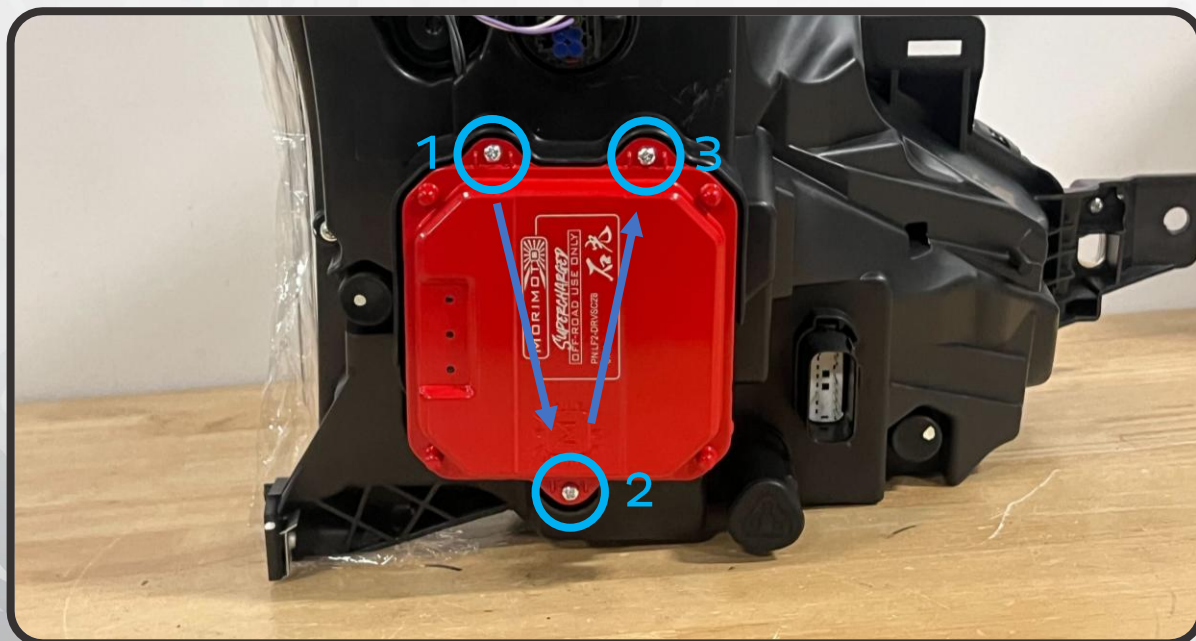


HEADLIGHT SETUP

20. 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



21. 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

22. LOCATE THE UNDER-HOOD FUSE BOX ON THE PASSENGER SIDE OF THE ENGINE BAY BY THE FIREWALL. OPEN THE LID TO THE FUSE BOX AND LOCATE AND REMOVE THE 10A FUSE FROM SLOT #16

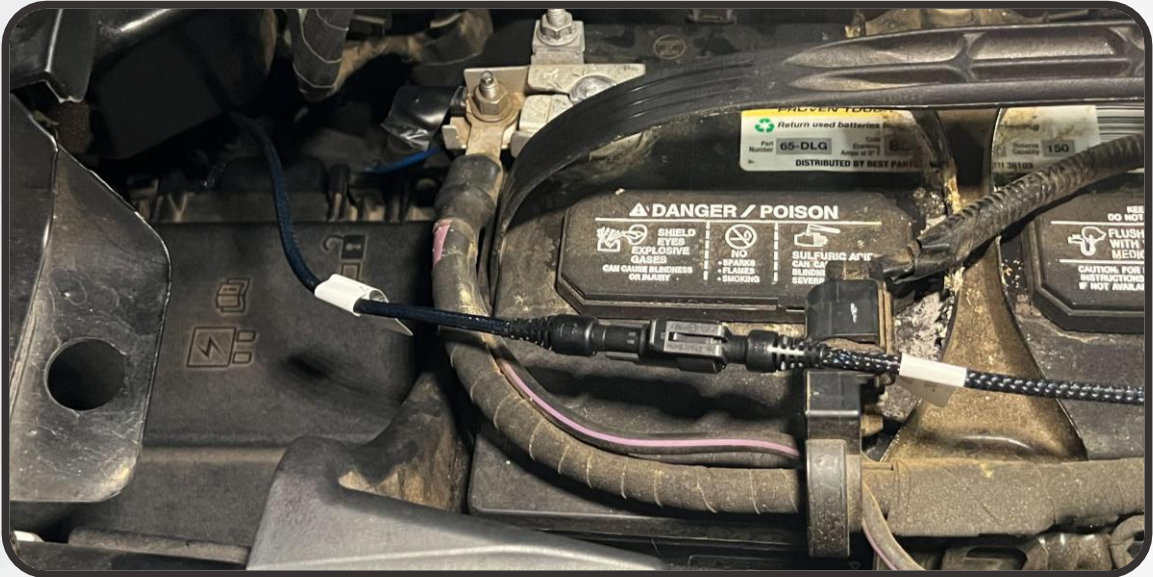


23. INSERT THE FUSE TAP INTO THE # 16 SLOT AND ROUTE THE HARNESS OUT OF THE FUSE BOX. USING A DRILL WITH A 5.5MM/7/32" DRILL BIT OR A SMALL CUTTING TOOL, MAKE A NOTCH IN THE SIDE WALL OF THE FUSE BOX LID SO THAT THE LID CAN CLOSE OVER THE GROMMET ON THE DRL FUSE TAP WIRE



WIRING

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



25. 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



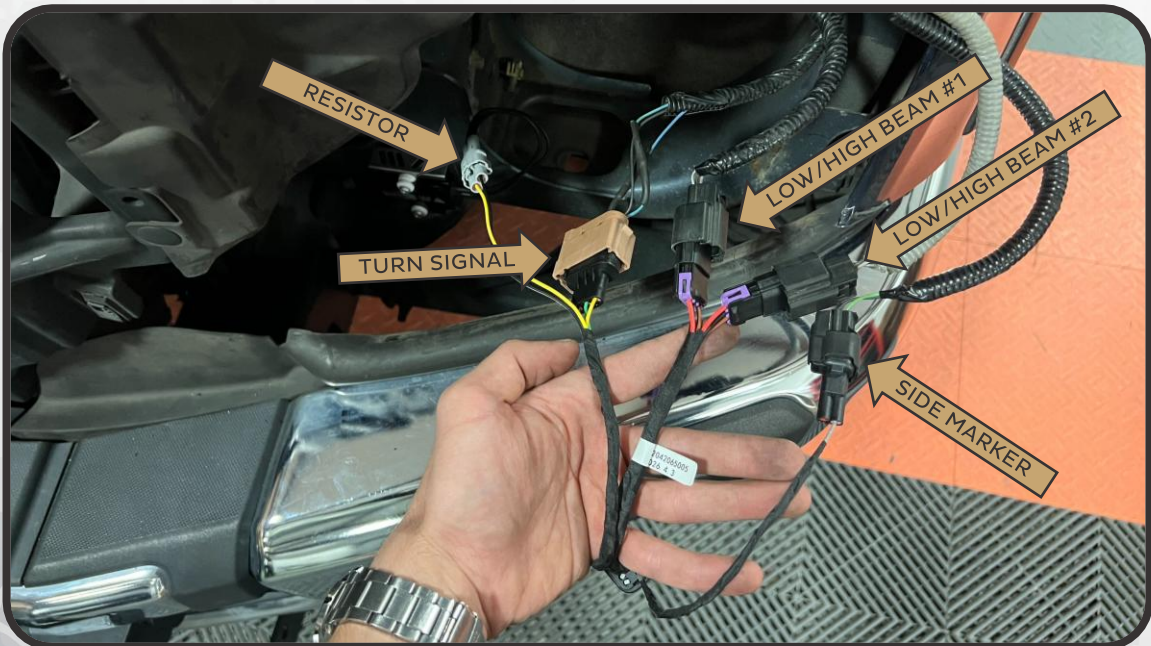
WIRING

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 28 ON THE NEXT PAGE

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

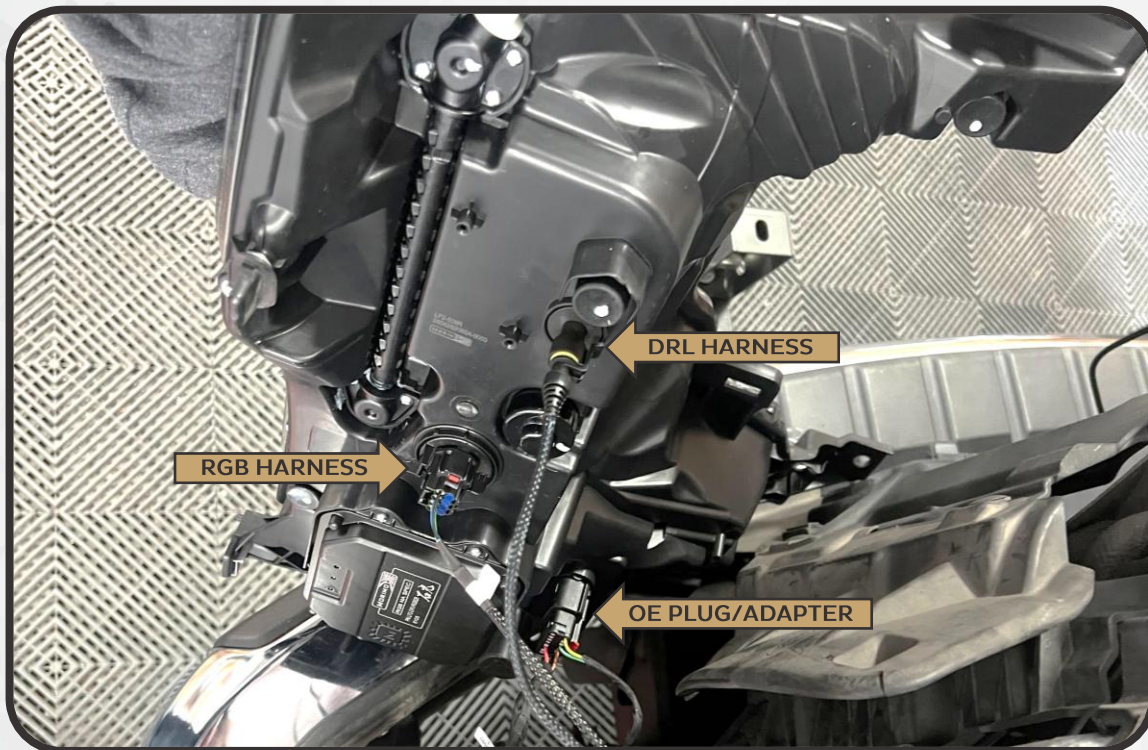


27. CONNECT THE HALOGEN INPUT ADAPTER HARNESS TO THE SIDE MARKER CONNECTOR, TURN SIGNAL CONNECTOR, RESISTOR, AND BOTH OF THE LOW/HIGH BEAM CONNECTORS, AS SHOWN BELOW, ON EACH SIDE OF THE TRUCK



HEADLIGHT INSTALLATION

28. 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



29. 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.
30. REPEAT STEPS 28 AND 29 ON THE OPPOSITE SIDE OF THE VEHICLE

HEADLIGHT INSTALLATION

31. 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

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

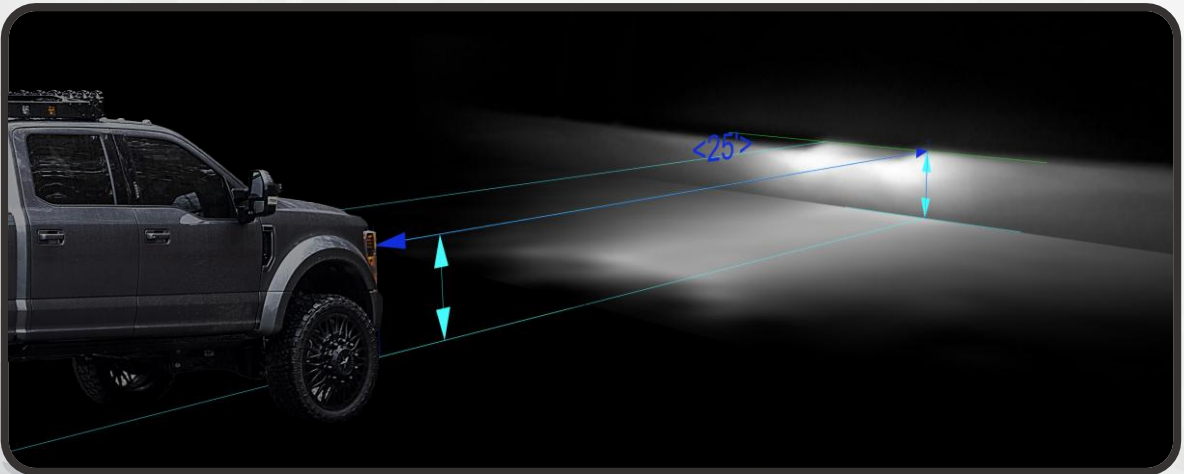
33. REINSTALL THE RADIATOR COVER THE SAME WAY YOU REMOVED IT, SECURING THE FOURTEEN PLASTIC PUSH CLIPS

AIMING

34. THE HEADLIGHTS COME OUT OF THE BOX AIMED FOR STOCK RIDE HEIGHT, HOWEVER IT IS RECOMMENDED TO FINE TUNE THE AIM OF YOUR LOW BEAM AFTER INSTALLATION REGARDLESS. USING A T30 TORX DRIVER DOWN THE BACK OF THE HEADLIGHT TO THE ADJUSTER GEAR, FOLLOW THE INSTRUCTIONS BELOW TO PROPERLY ALIGN YOUR HEADLIGHTS' LOW BEAM CUTOFF (THE UPPER HORIZONTAL EDGE OF THE LOW BEAM)



35. 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 ON THE LENS BETWEEN THE TOP TWO PROJECTORS)
- 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 ON THE WALL AS THE HEADLIGHT MEASUREMENT YOU TOOK
 - IF THE HEIGHT IS BETWEEN 35"-39", ADJUST THE CUTOFF ON THE WALL TO 2" BELOW YOUR HEADLIGHT MEASUREMENT
 - IF THE HEIGHT IS GREATER THAN 39.5", ADJUST THE CUTOFF ON THE WALL TO 3" BELOW YOUR HEADLIGHT MEASUREMENT. FACTORY RIDE HEIGHT TYPICALLY FALLS IN THIS RANGE AT APPROXIMATELY 44"



NOTE: AIMING SHOULD NOT REQUIRE MORE THAN THREE FULL TURNS OF THE ADJUSTER IN EITHER DIRECTION. OVER-ADJUSTING THE LIGHT MAY RESULT IN DAMAGE TO THE ADJUSTER

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:

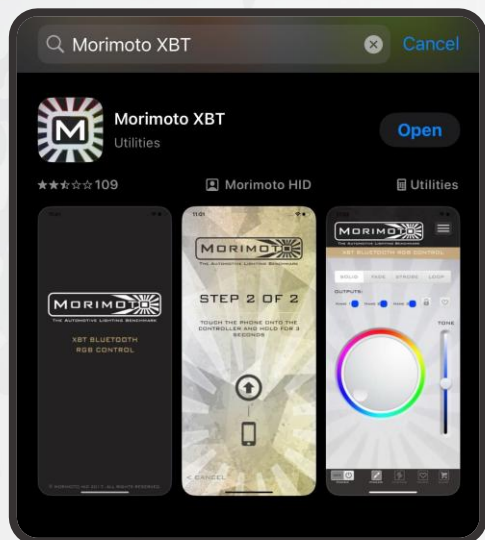
- AMBIENT TEMPERATURE NOT LOW ENOUGH (AT BELOW 5°C / 41°F)
- LENS TEMPERATURE ALREADY AT TARGET TEMPERATURE
- PRIMARY HEATING ELEMENT TEMPERATURE TOO HIGH
- INSUFFICIENT BATTERY VOLTAGE
- SYSTEM NOT REQUESTED ON

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

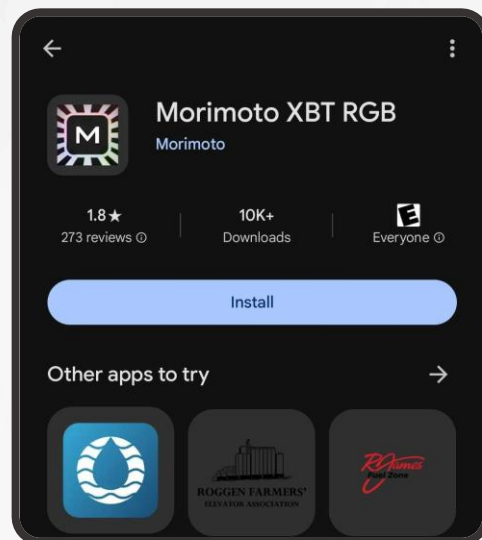


RGB CONTROLLER OPERATION (XRGB MODEL ONLY)

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

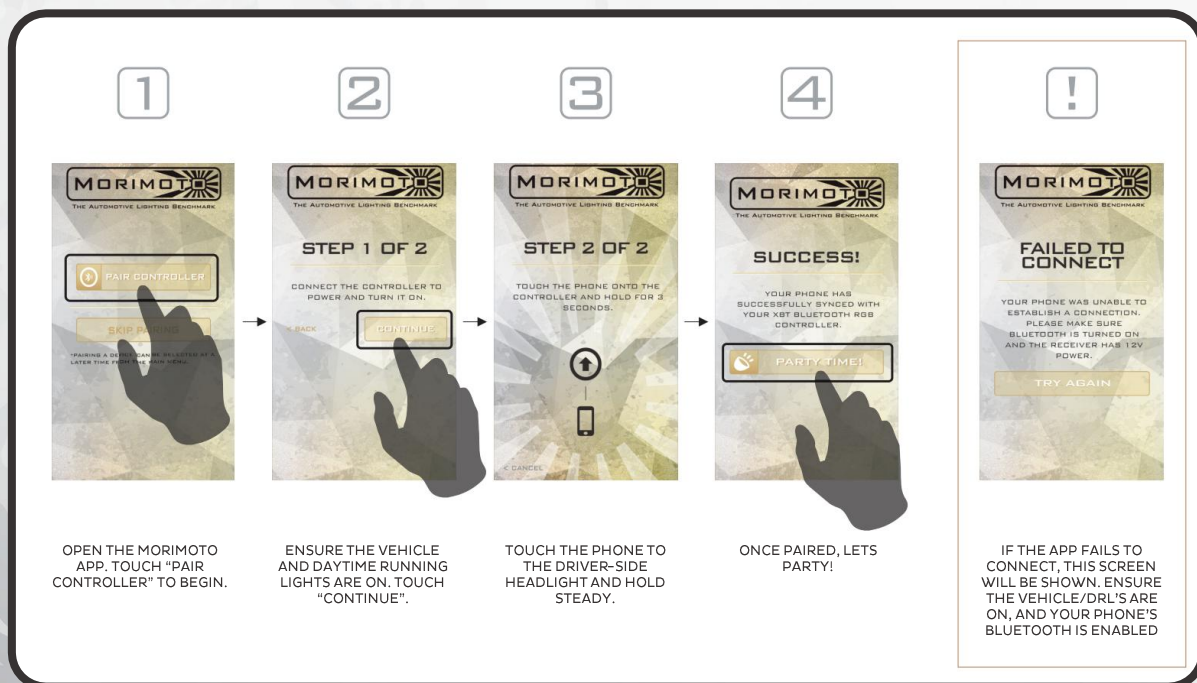


iOS



ANDROID

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



RGB CONTROLLER OPERATION

(XRGB MODEL ONLY)

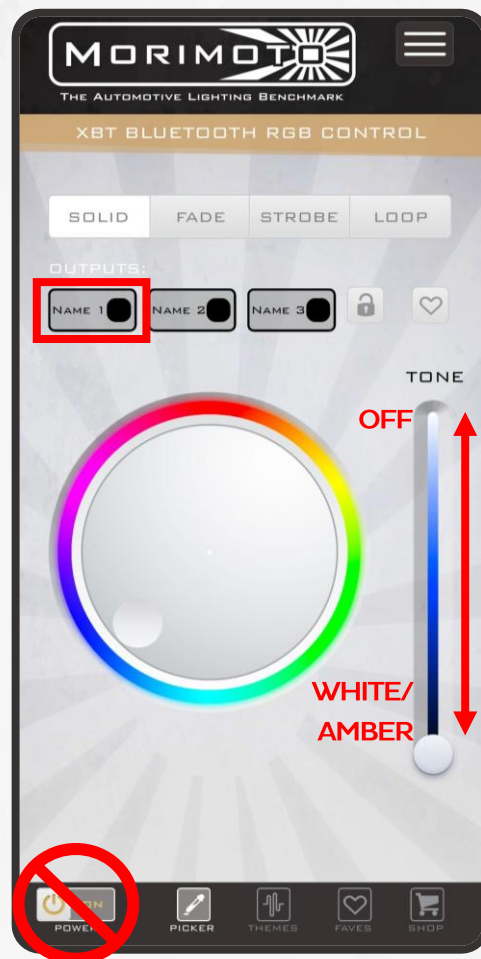
FUNCTION NOTES

MAKE SURE YOUR APP IS SET TO "OUTPUT 1"

TO SWITCH YOUR DAYTIME RUNNING LIGHT TO DEFAULT WHITE OR AMBER (DEPENDING ON YOUR INSTALLED MODE SELECTOR KEY), SIMPLY SLIDE THE TONE BAR ON THE RIGHTHAND SIDE OF THE SCREEN ALL THE WAY TO THE BOTTOM

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 TOP

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: 20-22 SUPER DUTY



- ENJOY YOUR NEW MORIMOTO XB EVO HEADLIGHTS! -

