MORIMOTO

BRIGHT IS ONLY THE BEGINNING

INSTALL GUIDE

XB EVO HEADLIGHTS: FORD F150 (09-14)

LF2-506/LF2-506Y

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 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.

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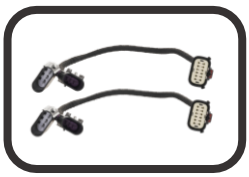
WHAT'S INCLUDED

2X (PAIR) HEADLIGHT HOUSINGS

1X FUSE TAP

1X DRL HARNESS

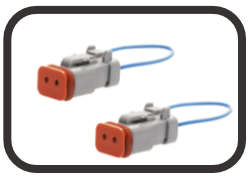
4X MOUNTING CLIPS



2X OEM HALOGEN INPUT HARNESSES

2X OEM HID INPUT HARNESSES

2X SIDE MARKER CONNECTOR CAPS



2X HIGH BEAM KEYS (NON-HYBRID ONLY)

8X (4 PAIRS) MODE SELECTOR KEYS (NON-HYBRID ONLY)

REQUIRED TOOLS

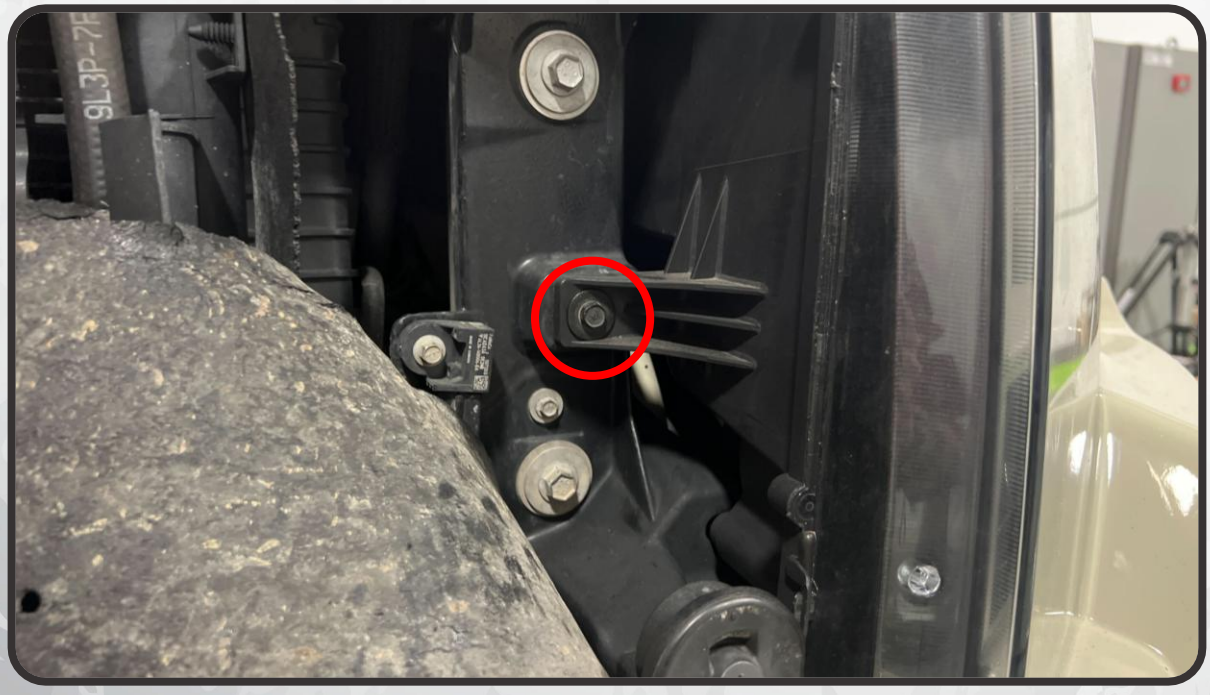
- PHILLIPS HEAD SCREWDRIVER
- RATCHET
- 10MM SOCKET
- PLASTIC PRY TOOL
- ZIP TIES
- LONG T30 TORX BIT (NON-HYBRID ONLY)

DISASSEMBLY

1. RAISE THE HOOD OF THE VEHICLE

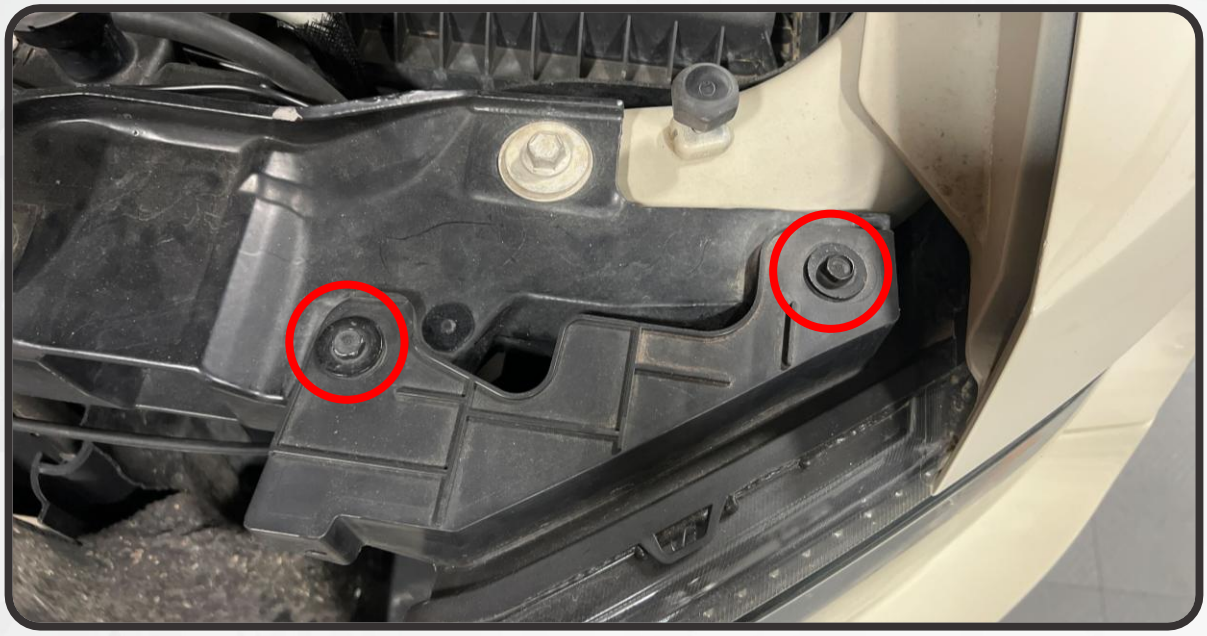
2. REMOVE THE PLASTIC PUSH CLIP THAT SECURES THE RUBBER AIR DAM TO THE HEADLIGHT BY UNSCREWING THE CENTER PORTION WITH A PHILLIPS HEAD SCREWDRIVER, THEN PULLING OUT THE MAIN BODY OF THE CLIP. WITH THE CLIP REMOVED, PULL THE AIR DAM AWAY FROM THE HEADLIGHT

3. REMOVE THE 10MM BOLT THAT SECURES THE INNER EDGE OF THE HEADLIGHT TO THE RADIATOR SUPPORT

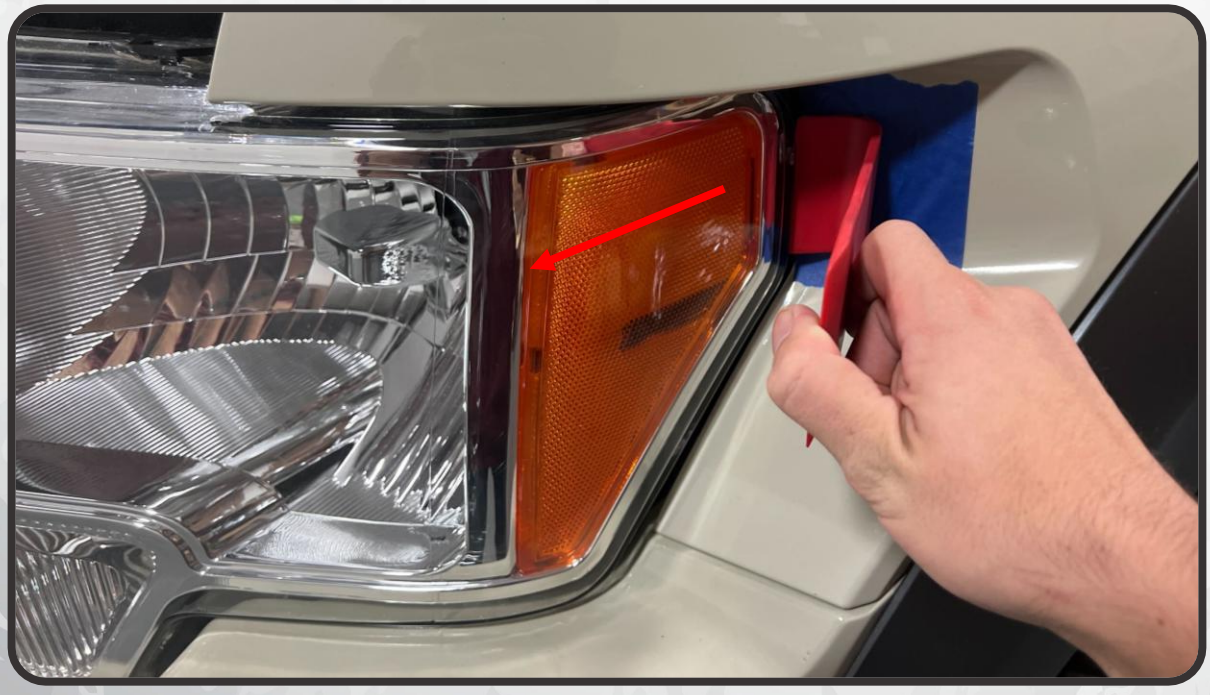


DISASSEMBLY

4. REMOVE THE TWO 10MM BOLTS FROM THE TOP OF THE HEADLIGHT



5. USING A PLASTIC PRY TOOL, PRY THE HEADLIGHT FORWARD FROM THE OUTERMOST CORNER. THIS WILL RELEASE THE CLIP ON THE HEADLIGHT FROM THE BODY OF THE TRUCK. WE RECOMMEND APPLYING A PIECE OF PAINTERS TAPE WHERE YOU WILL BE PRYING AGAINST TO PREVENT DAMAGE TO THE PAINT



DISASSEMBLY

6. PULL THE HEADLIGHT FORWARD, AWAY FROM THE VEHICLE. ROCK THE HEADLIGHT FORWARD AND DISCONNECT THE THREE CONNECTORS SHOWN BELOW FROM THE BACK OF THE FACTORY HEADLIGHT. ONCE THE HEADLIGHT IS UNPLUGGED, IT CAN BE FULLY REMOVED FROM THE VEHICLE AND SET ASIDE

7. REPEAT STEPS 2-6 ON THE OPPOSITE SIDE OF THE VEHICLE

HEADLIGHT SETUP

8. REMOVE YOUR NEW HEADLIGHTS FROM THE BOX. WITH THE HEADLIGHTS FACE-DOWN, INSTALL THE INCLUDED CLIPS ONTO THE STUDS ON THE OUTER EDGE OF THE BACK OF THE LIGHT AS SHOWN (2X PER LIGHT)

9. (LF2-506 / NON-HYBRID MODEL ONLY) AS STANDARD, THE AUXILLARY HIGH BEAM 1BANGERS ARE DISABLED FOR DOT COMPLIANCE WITH THE BLOCK-OFF PLUG ON THE CONNECTOR SHOWN BELOW. TO ENABLE THE AUXILIARY HIGH BEAM FOR OFF-ROAD USE, INSTALL THE SELECTOR LOOP AS SHOWN. **DO NOT POWER THIS CONNECTOR DIRECTLY. PERMANENT DAMAGE WILL RESULT AND IS NOT COVERED UNDER WARRANTY**

NOTE: DUE TO THE SEPARATE ADJUSTER ON THE AUXILIARY HIGH BEAM PODS, THIS FEATURE IS NOT COMPLIANT FOR ON-ROAD USE

HEADLIGHT SETUP

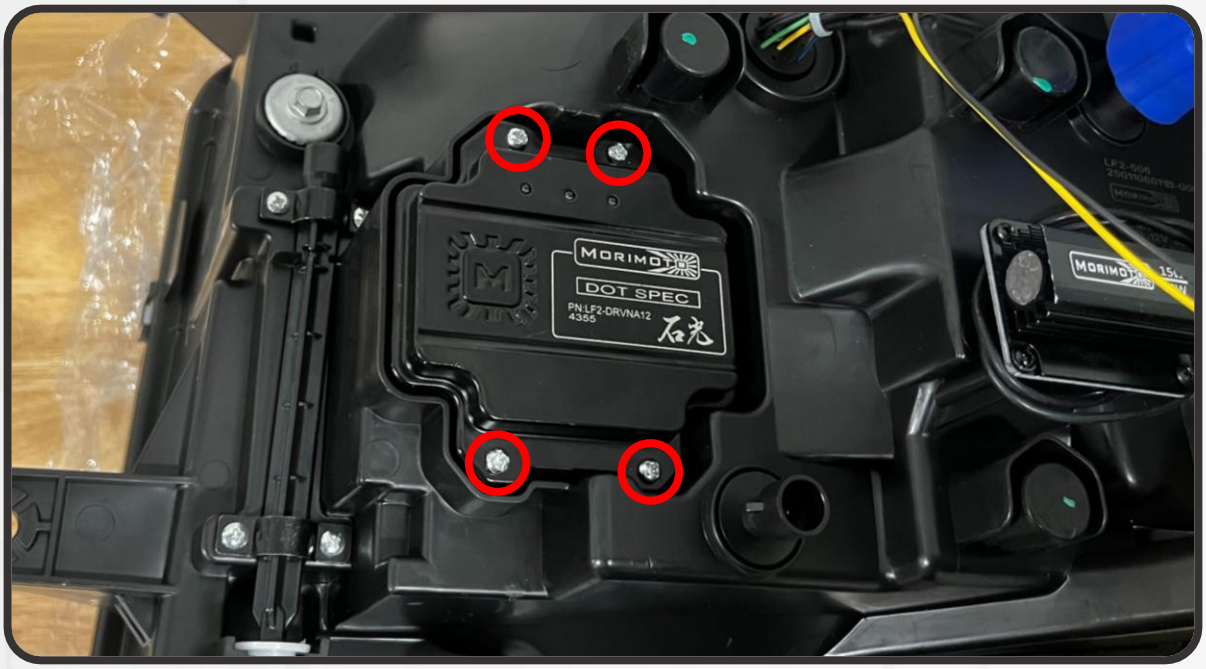
10. (NON-HYBRID MODEL ONLY) WITH THE MORIMOTO XB MODE SELECTOR KEYS, YOU CAN DECIDE WHAT STYLE YOU'D LIKE FOR YOU DAYTIME RUNNING LIGHT AND TURN SIGNAL. CHOOSE FROM THE COLORCODED KEYS SHOWN BELOW FOR YOUR DESIRED STYLE

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

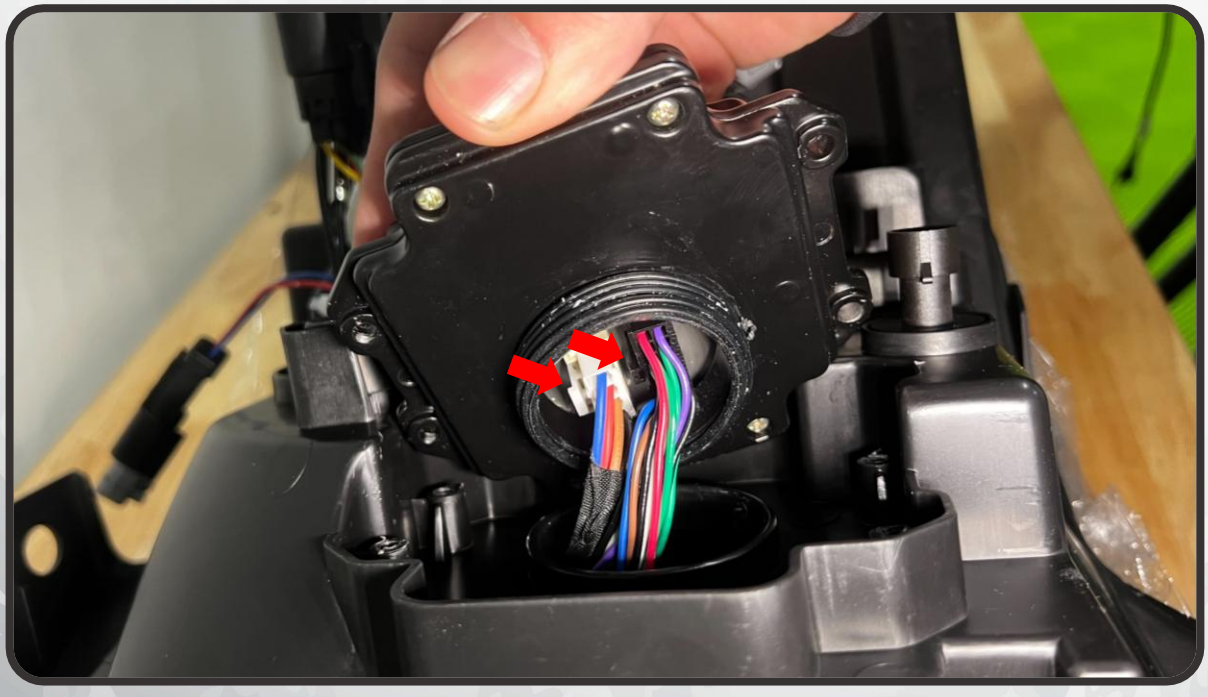
11. (NON-HYBRID MODEL ONLY) INSTALL THE MODE SELECTOR FOR YOUR PREFERRED MODE ONTO THE 3-PIN CONNECTOR ON THE BACK OF EACH HEADLIGHT (BLUE WILL BE PREINSTALLED OUT OF THE BOX). THIS CAN ALWAYS BE CHANGED AFTER INSTALL IF DESIRED. MAKE SURE THE VEHICLE AND HEADLIGHTS ARE OFF WHEN CHANGING MODE SELECTORS

HEADLIGHT SETUP

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

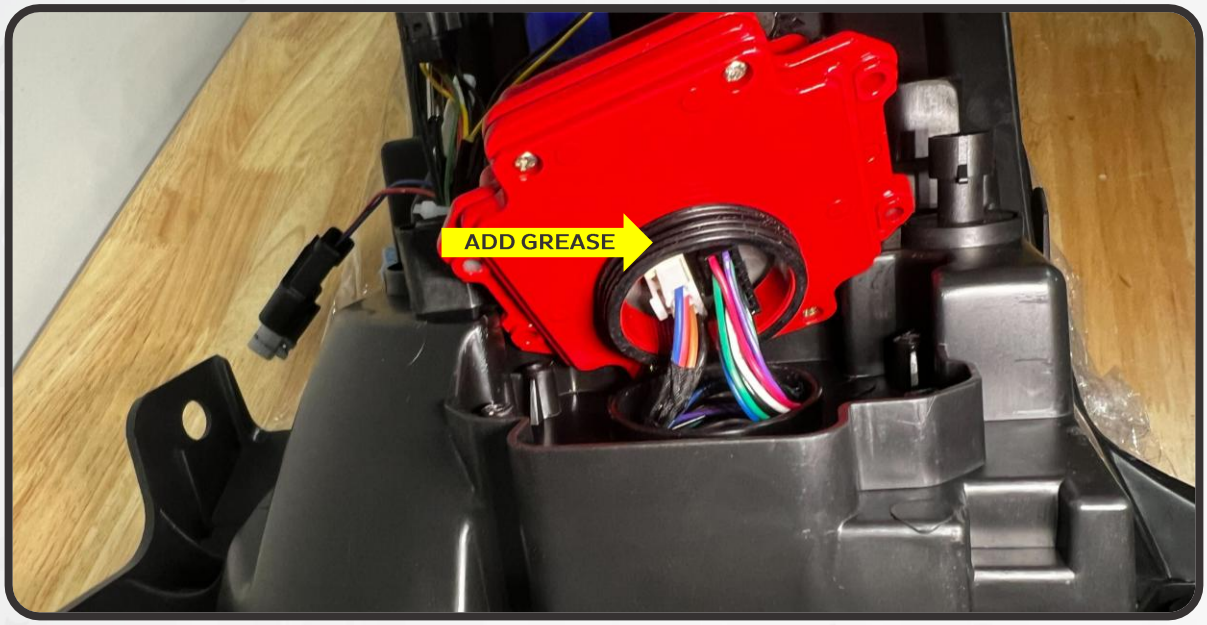


13. PULL THE DRIVER OFF OF THE HOUSING. DEPRESS THE CLIP ON EACH OF THE DRIVER CONNECTORS AND PULL TO DISCONNECT THE DRIVER FROM THE INTERNAL HEADLIGHT WIRING

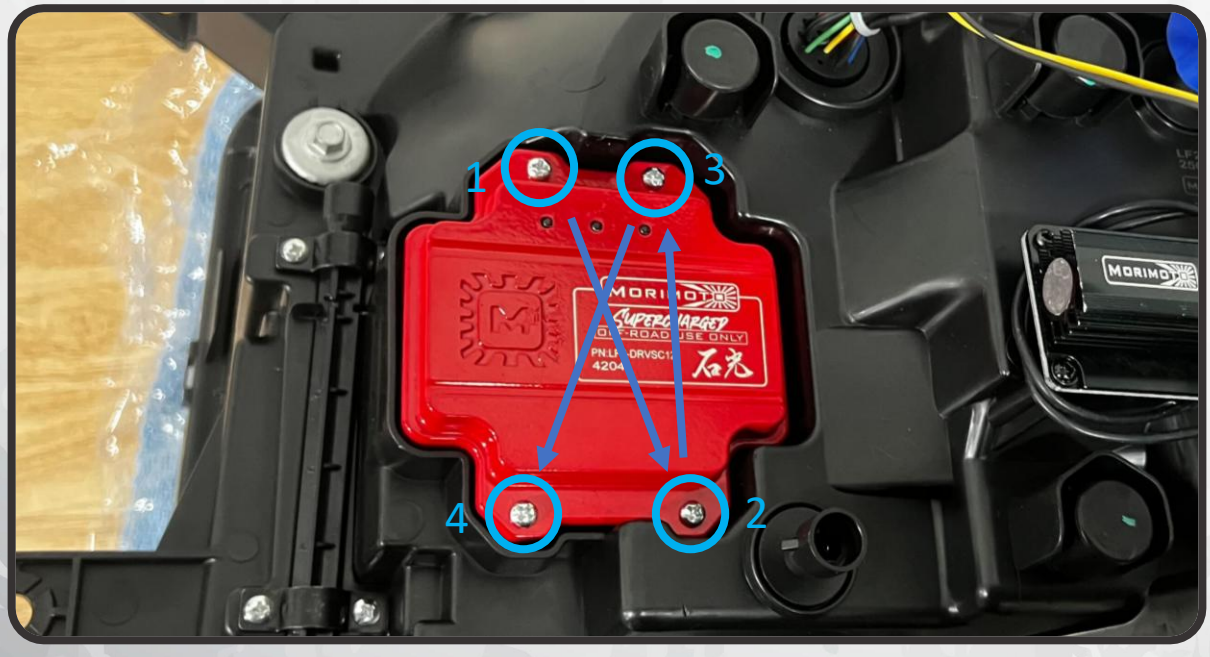


HEADLIGHT SETUP

14. 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



15. 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 FOUR PHILLIPS HEAD SCREWS, HAND TIGHTENTING THEM DOWN IN A STAR PATTERN TO ENSURE THE DRIVER SEATS EVENLY AGAINST THE HOUSING



INSTALLATION

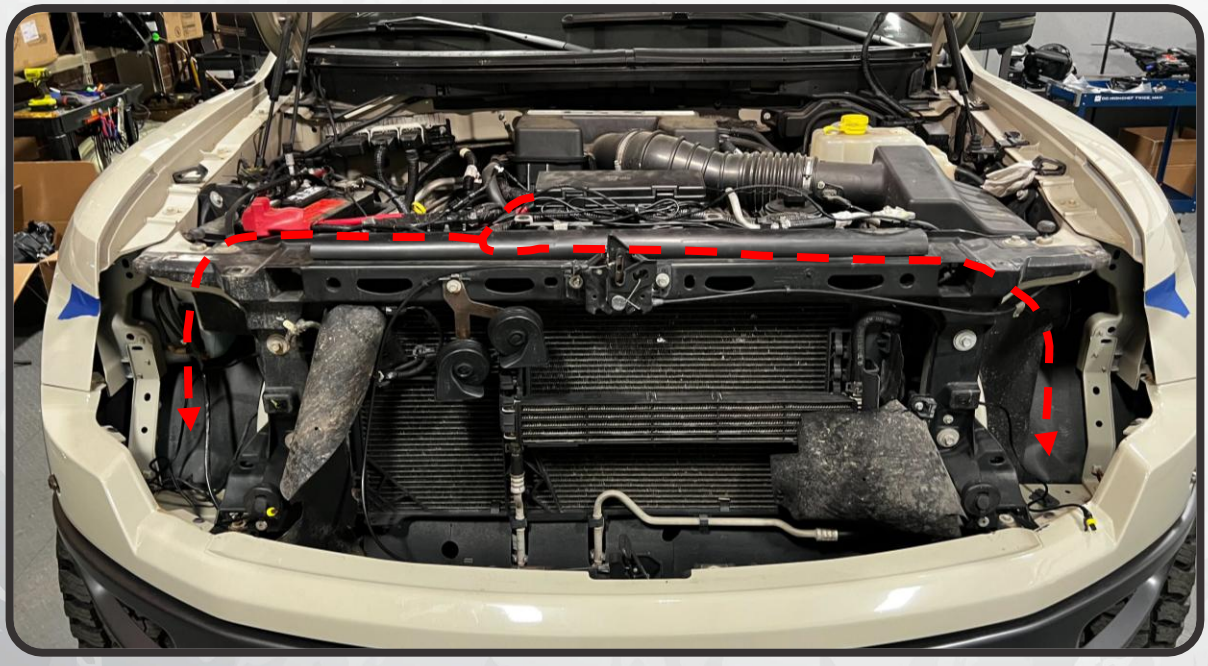
16. OPEN THE UNDER-HOOD FUSE BOX LOCATED BEHIND THE RADIATOR. LOCATE THE 10A FUSE IN FUSE SLOT #77 AND REMOVE IT

17. INSERT THE INCLUDED FUSE TAP INTO THE #77 FUSE SLOT AND ROUTE THE FUSE TAP HARNESS OUT OF THE FUSE BOX

INSTALLATION

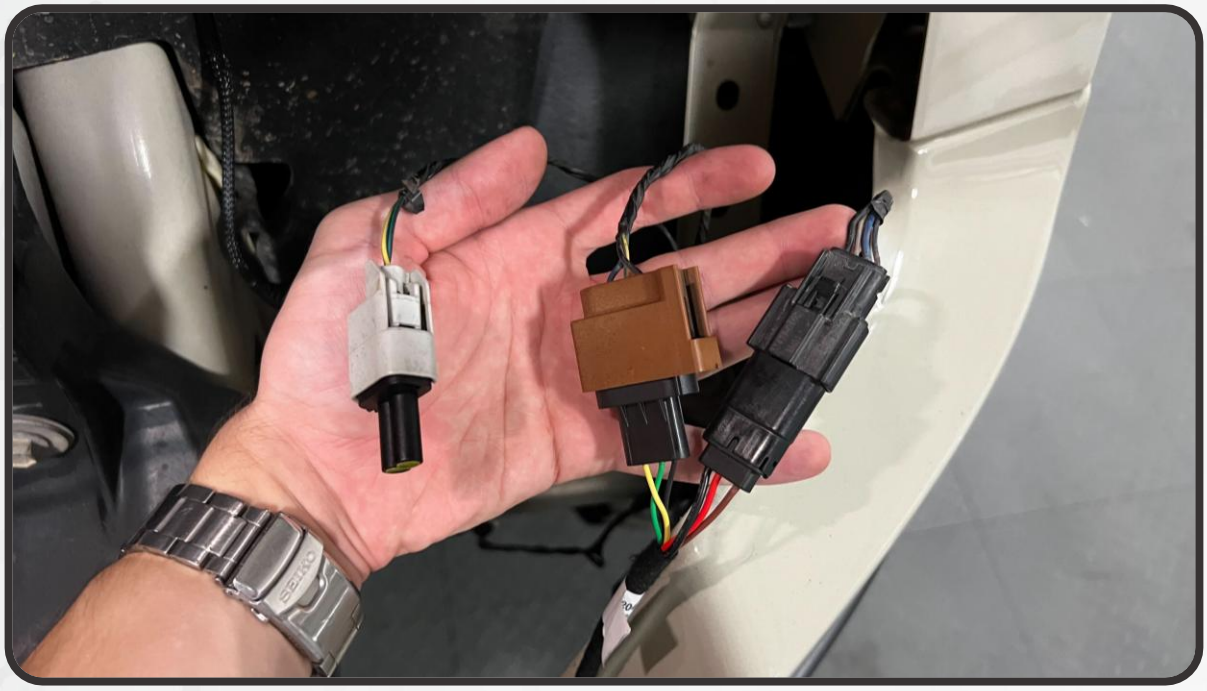
18. CONNECT THE SHORT END OF THE DRL HARNESS TO THE FUSE TAP

19. ROUTE THE EACH OF THE REMAINING TWO CONNECTORS ON THE DRL HARNESS ACROSS THE RADIATOR SUPPORT TO EACH OF THE HEADLIGHT CAVITIES. MAKE SURE TO SECURE ANY LOOSE/EXCESS WIRING



INSTALLATION

20. SELECT THE APPROPRIATE HEADLIGHT HARNESS FOR YOUR TRUCK AND CONNECT IT TO THE VEHICLE'S LOW/HIGH BEAM CONNECTOR, AND TURN SIGNAL/PARKING LIGHT CONNECTOR. THE SIDE MARKER CONNECTOR WILL NOT BE USED, SO INSTALL THE PROVIDED BLOCK-OFF PLUG TO KEEP DIRT AND WATER OUT



21. LIFT THE HEADLIGHT UP TO THE VEHICLE AND CONNECT THE DRL HARNESS AND HEADLIGHT INPUT HARNESS TO THE HEADLIGHT ASSEMBLY

INSTALLATION

22. WITH THE HEADLIGHT CONNECTED, FIT THE ASSEMBLY INTO THE HEADLIGHT CAVITY AND PUSH IT STRAIGHT ONTO THE VEHICLE

23. LOOSELY REINSTALL THE FACTORY HARDWARE TO SECURE THE LIGHT TO THE TRUCK

24. REPEAT STEPS 20-23 ON THE OPPOSITE SIDE OF THE TRUCK

25. GET IN THE VEHICLE AND CONFIRM THAT ALL FUNCTIONS ARE WORKING PROPERLY

    - 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

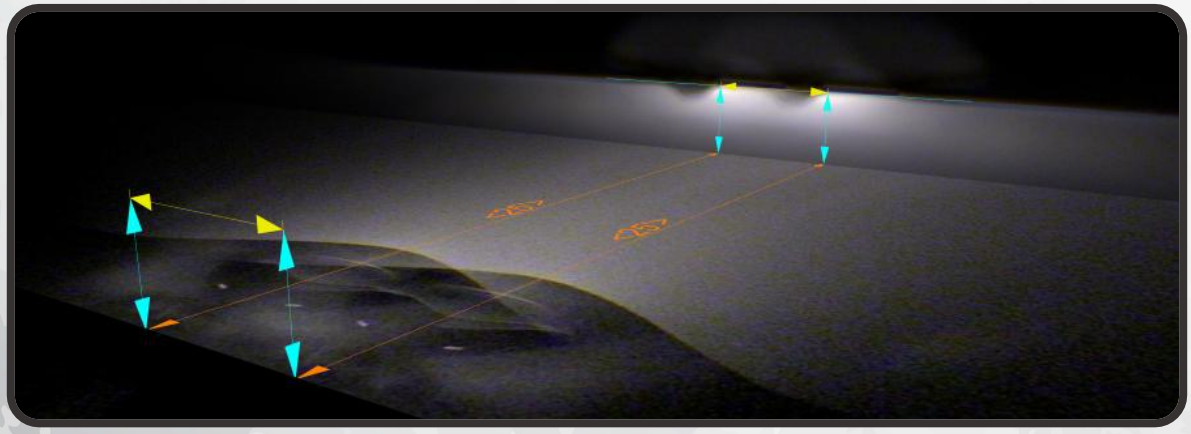
- GREEN – LOW BEAM
- BLUE – HIGH BEAM
- RED – FUSE TAP

26. GO BACK AND TIGHTEN DOWN ALL HARDWARE AND REASSEMBLE THE FRONT OF THE VEHICLE IN THE REVERSE ORDER OF DISASSEMBLY

AIMING

27. 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 LONG #2 PHILLIPS HEAD SCREWDRIVER DOWN THE BACK OF THE HEADLIGHT TO THE ADJUSTER GEAR, FOLLOW THE INSTRUCTIONS BELOW TOPROPERLY ALIGN YOUR HEADLIGHTS' LOW BEAM CUTOFF (THE UPPER HORIZONTAL EDGE OF THE LOW BEAM)

28. WITH THE VEHICLE PARKED ON LEVEL GROUND, 25' FROM A WALL, MEASURE THE DISTANCE FROM THE GROUND TO THE OPTICAL CENTER OF THE OUTERMOST PROJECTOR IN THE HEADLIGHT
    - 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. FACTORY RIDE HEIGHT (NON-RAPTOR) TYPICALLY FALLS IN THIS RANGE AT APPROXIMATELY 38"
    - IF THE HEIGHT IS GREATER THAN 39.5", ADJUST THE CUTOFF TO 3" BELOW YOUR HEADLIGHT MEASUREMENT



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

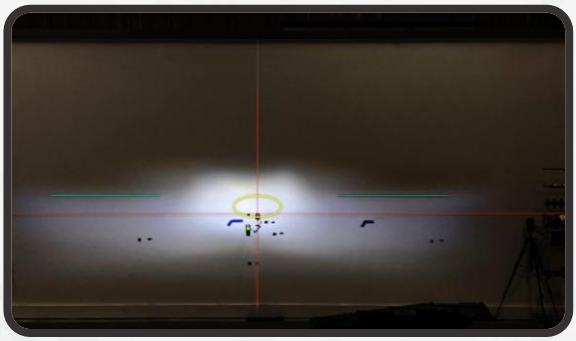
AIMING

29. IF YOU PURCHASED THE XB EVO (NON-HYBRID) HEADLIGHTS, YOUR AUXILARY HIGH BEAM 1BANGER PODS ARE ADJUSTED INDEPENDENTLY OF YOUR MAIN LOW/HIGH BEAM PROJECTORS. USE A LONG T30 TORX DRIVER TO TURN THE AUXILLARY HIGH BEAM ADJUSTER. IF YOU DON'T HAVE A T30 TORX DRIVER THAT CAN READ THE ADJUSTER,A 5/32" HEX BIT, OR A 3/16" FLATHEAD MAY WORK INSTEAD

NOTE: DUE TO THE SEPARATE ADJUSTER ON THE AUXILIARY HIGH BEAM PODS, THIS FEATURE IS NOT COMPLIANT FOR ON-ROAD USE.

30. WITH THE PROJECTOR BEAMS NOW PROPERLY AIMED, MARK THE HEIGHT OFTHE LOW BEAM ON THE WALL AND COVER THE PROJECTORS AND ADJUST THE AIM OF THE AUXILARY HIGH BEAM UNTIL IT IS JUST ABOVE THE MARK OF THE TOP OF THE LOW BEAM

LOW BEAM



AUXILLARY HIGH BEAM WITH PROJECTORS COVERED

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

LENS HEATER ACTIVATION
(NOT APPLICABLE ON XB EVO HYBRID HEADLIGHTS)

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

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- ENJOY YOUR NEW MORIMOTO XB HEADLIGHTS! -