MORIMOTO

BRIGHT IS ONLY THE BEGINNING

INSTALL GUIDE

XB EVO HEADLIGHTS: 14-21 TOYOTA TUNDRA

LF2-532/LF2-532Y

DESIGNED + ENGINEERED + PERFECTED IN ATLANTA, GA

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.

XB EVO HEADLIGHTS: 14-21 TOYOTA TUNDRA

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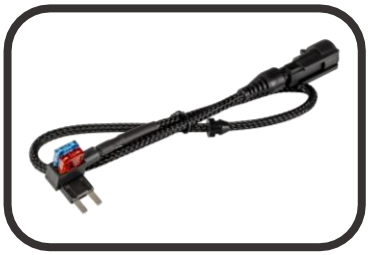
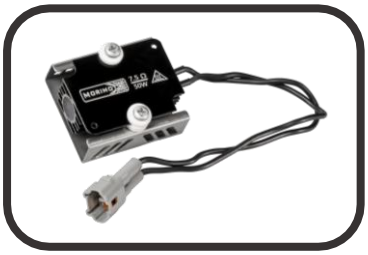
WHAT'S INCLUDED (ALL VERSIONS)

2X (PAIR) HEADLIGHT ASSEMBLIES



1X FUSE TAP

1X DRL HARNESS



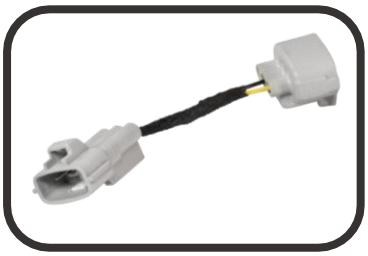
2X MAGNET MOUNT RESISTORS

2X HALOGEN INPUT HARNESSES

2X LED INPUT HARNESSES

XB EVO HEADLIGHTS: 14-21 TOYOTA TUNDRA

WHAT'S INCLUDED (ALL VERSIONS)



2X TURN SIGNAL ADAPTERS

WHAT'S INCLUDED (EVO MODEL ONLY)

4X PAIRS OF MODE SELECTORS

OPTIONAL ADD-ONS (SOLD SEPARATELY)

2X SUPERCHARGED LED DRIVERS

REQUIRED TOOLS

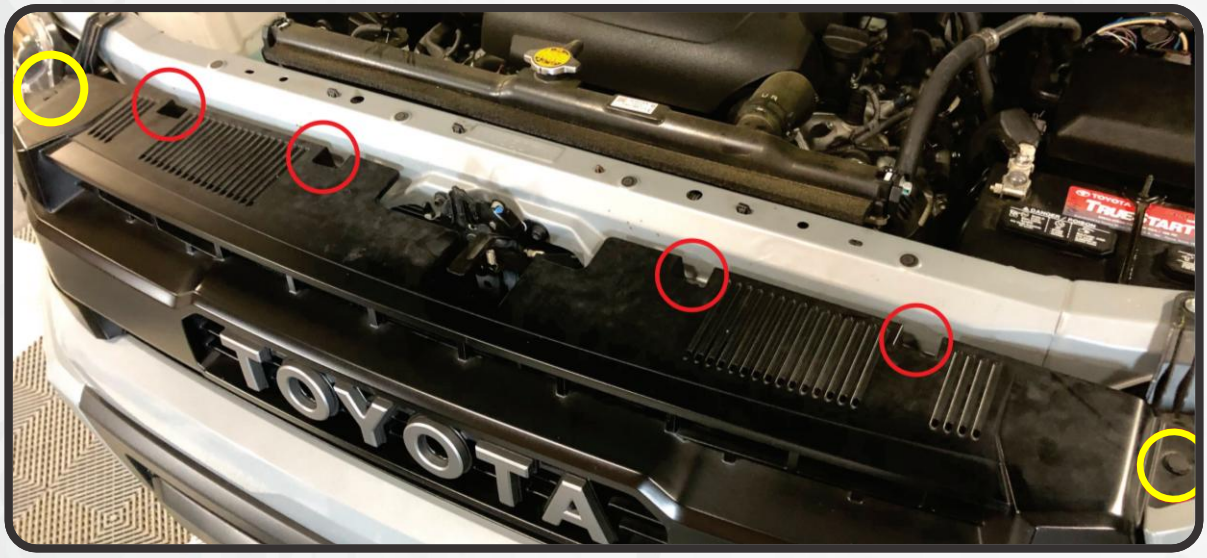
- 10MM SOCKET
- RATCHET
- NEEDLE NOSE PLIERS
- STRAIGHT PICK
- PRY/TRIM REMOVAL TOOL
- LONG #2 PHILLIPS HEAD SCREWDRIVER

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

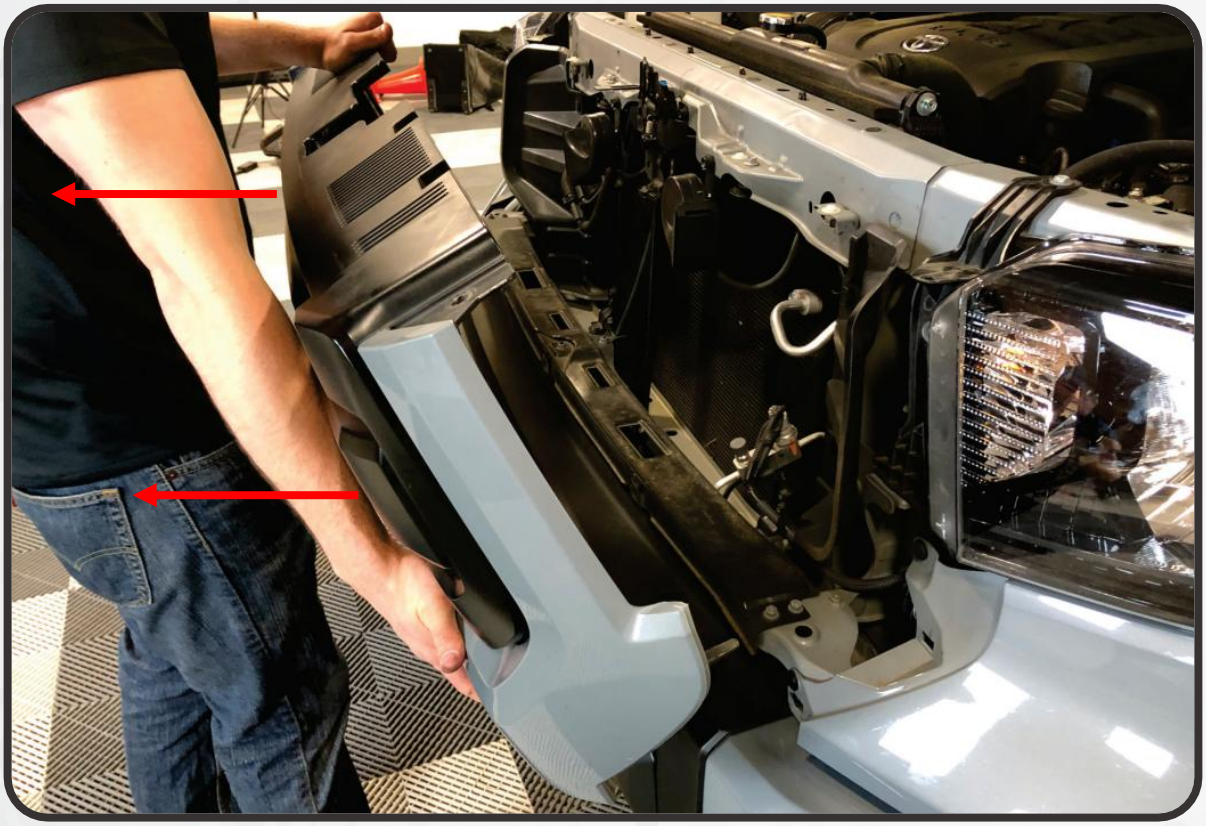
VEHICLE USED IN THIS GUIDE:
2018 TOYOTA TUNDRA, FACTORY HALOGEN W/ INCANDESCENT DRL HEADLIGHTS

1. RAISE THE HOOD OF THE TRUCK
2. REMOVE THE FOUR 10MM BOLTS (RED) AND TWO PLASTIC PUSH-CLIPS (YELLOW) THAT SECURE THE TOP OF THE GRILLE



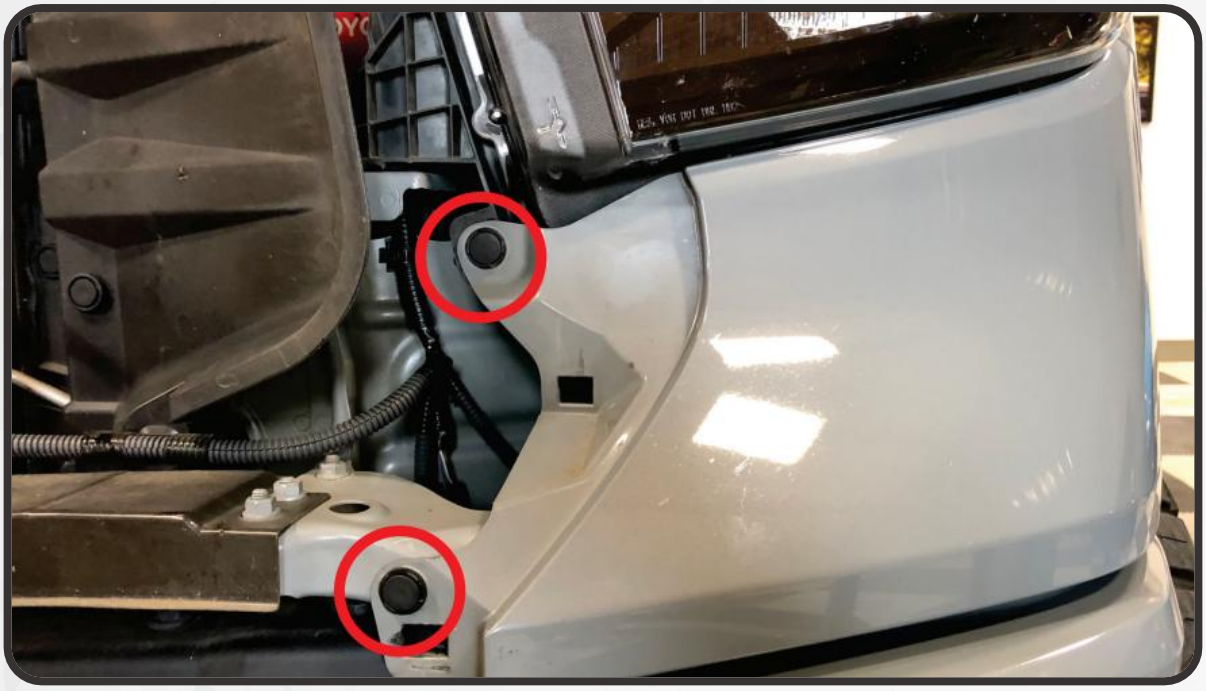
DISASSEMBLY

3. REMOVE THE GRILLE BY LEANING THE TOP OF THE GRILLE FORWARD, THEN PULLING THE ENTIRE GRILLE AWAY FROM THE TRUCK. THERE ARE FIVE CLIPS ALONG THE BOTTOM OF THE GRILLE THAT WILL RELEASE AS YOU DO



DISASSEMBLY

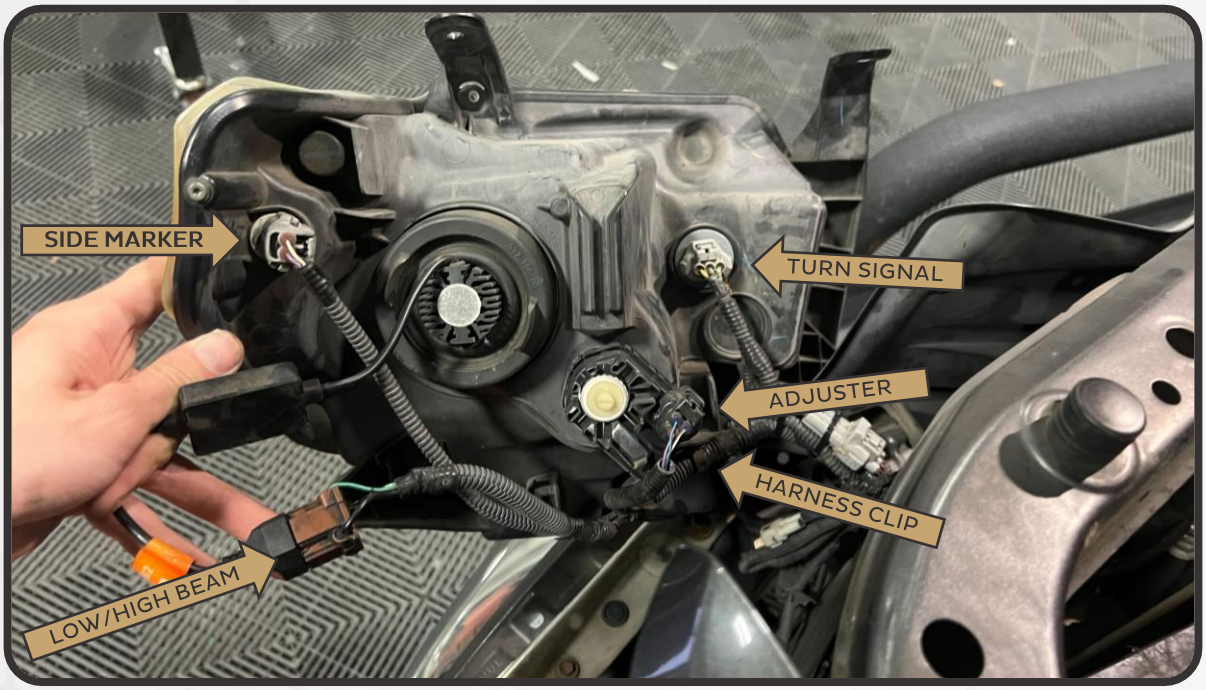
4. REMOVE THE TWO PLASTIC PUSH-CLIPS ON THE LOWER TRIM PANEL, THEN REMOVE THE PANEL BY PULLING THE IT FORWARD, OFF THE VEHICLE



5. UNBOLT THE HEADLIGHT BY REMOVING THE THREE 10MM BOLTS THAT SECURE IT. LIFT UP ON THE TWO TABS ON TOP OF THE HEADLIGHT, AND PULL THE ASSEMBLY FORWARD AWAY FROM THE VEHICLE

DISASSEMBLY

6. DISCONNECT ALL CONNECTIONS ON THE BACK OF THE HEADLIGHT HOUSING (WILL VARY BETWEEN MODELS) AND UNCLIP THE HARNESS FROM THE ASSEMBLY. SET THE HOUSING ASIDE



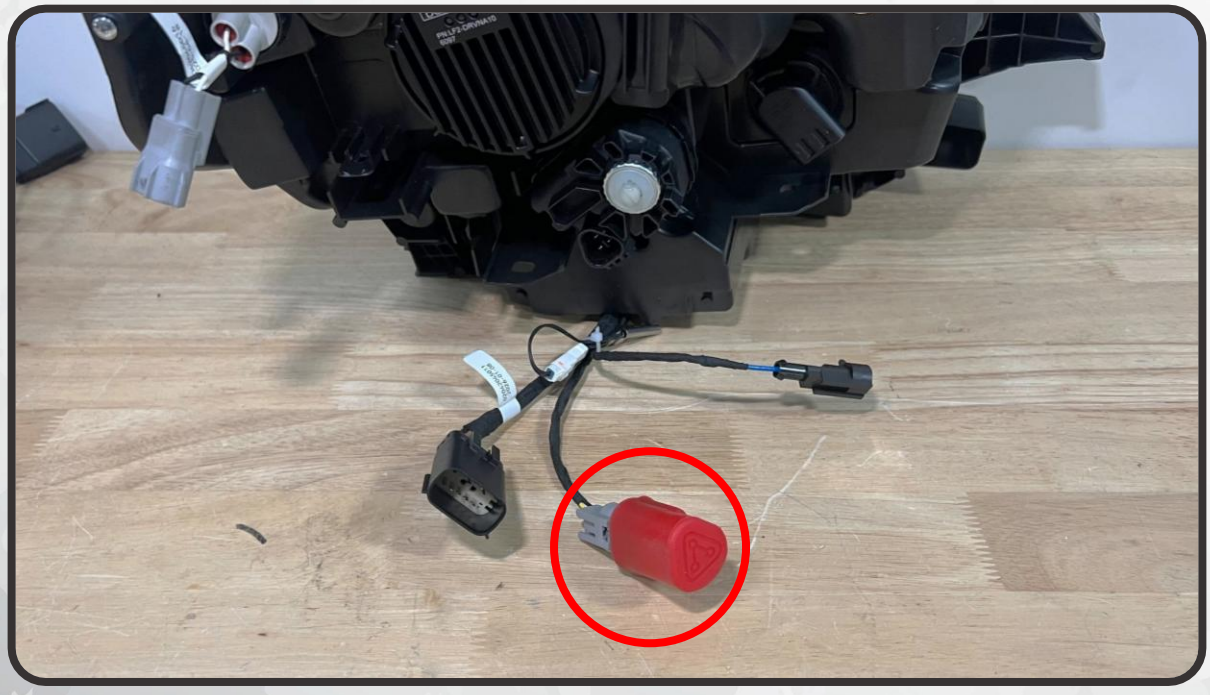
7. REPEAT STEPS 4–6 ON THE OPPOSITE SIDE OF THE VEHICLE

HEADLIGHT SETUP

8. 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

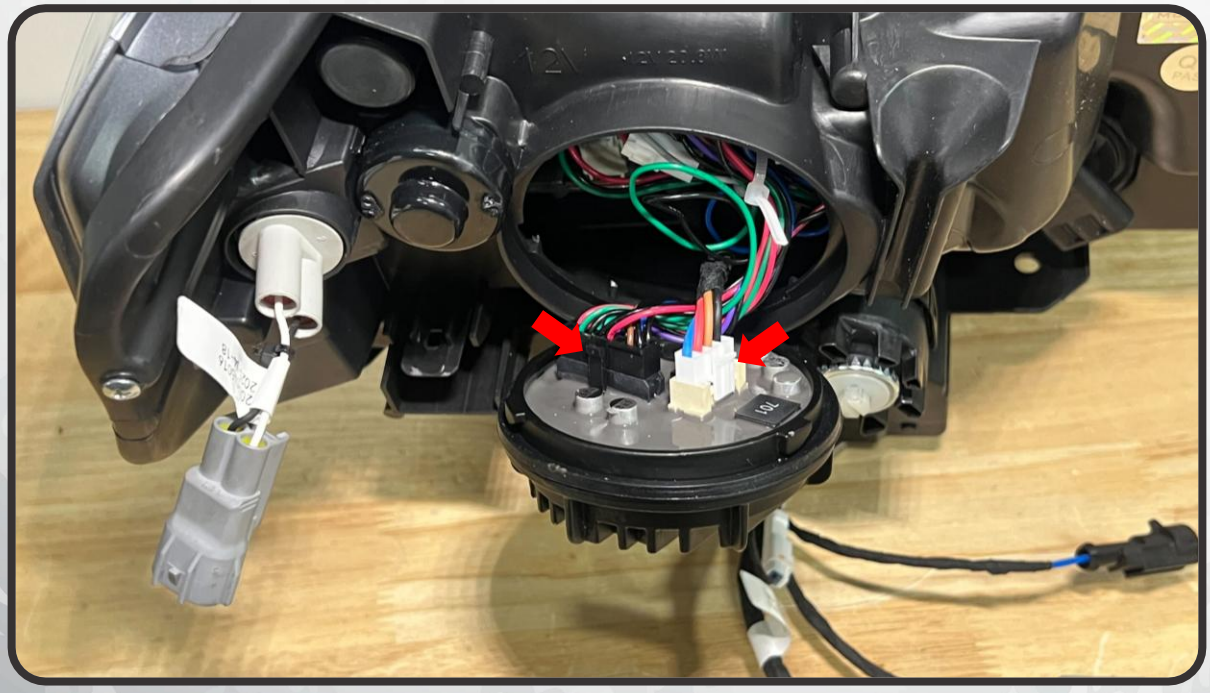
9. INSTALL THE MODE SELECTOR FOR YOUR PREFERRED MODE ONTO THE 3-PIN CONNECTOR ON THE BACK OF EACH HEADLIGHT. THIS CAN ALWAYS BE CHANGED AFTER INSTALL IF DESIRED. MAKE SURE THE VEHICLE AND HEADLIGHTS ARE OFF WHEN CHANGING MODE SELECTORS



HEADLIGHT SETUP

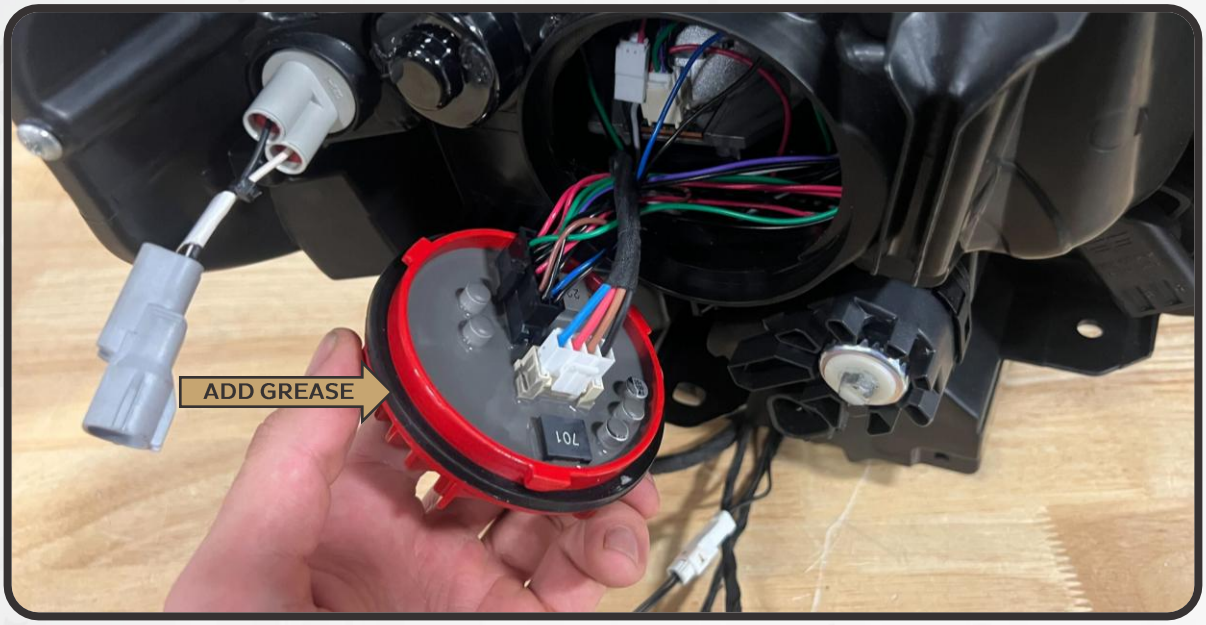
10. IF YOU HAVE PURCHASED THE MORIMOTO XB SUPERCHARGED HEADLIGHT DRIVERS (SOLD SEPARATELY, FOR OFFROAD USE ONLY), REMOVE THE STANDARD DRIVER BY TURNING IT COUNTERCLOCKWISE AND PULLING IT OUT OF THE HOUSING

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

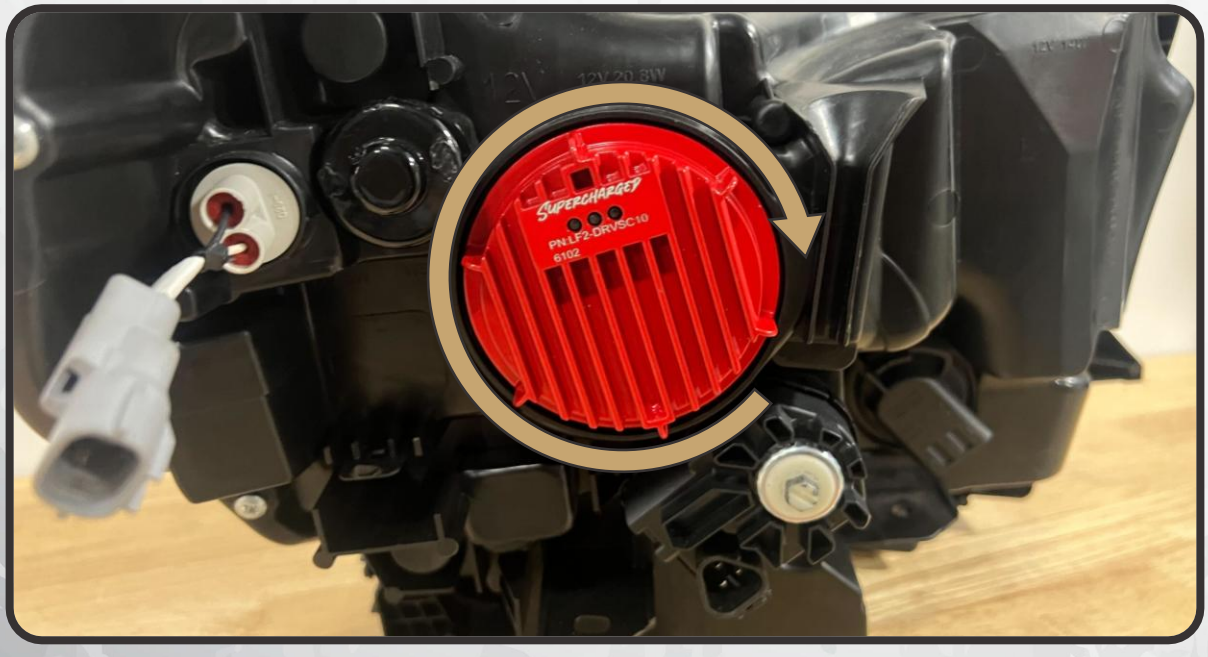


HEADLIGHT SETUP

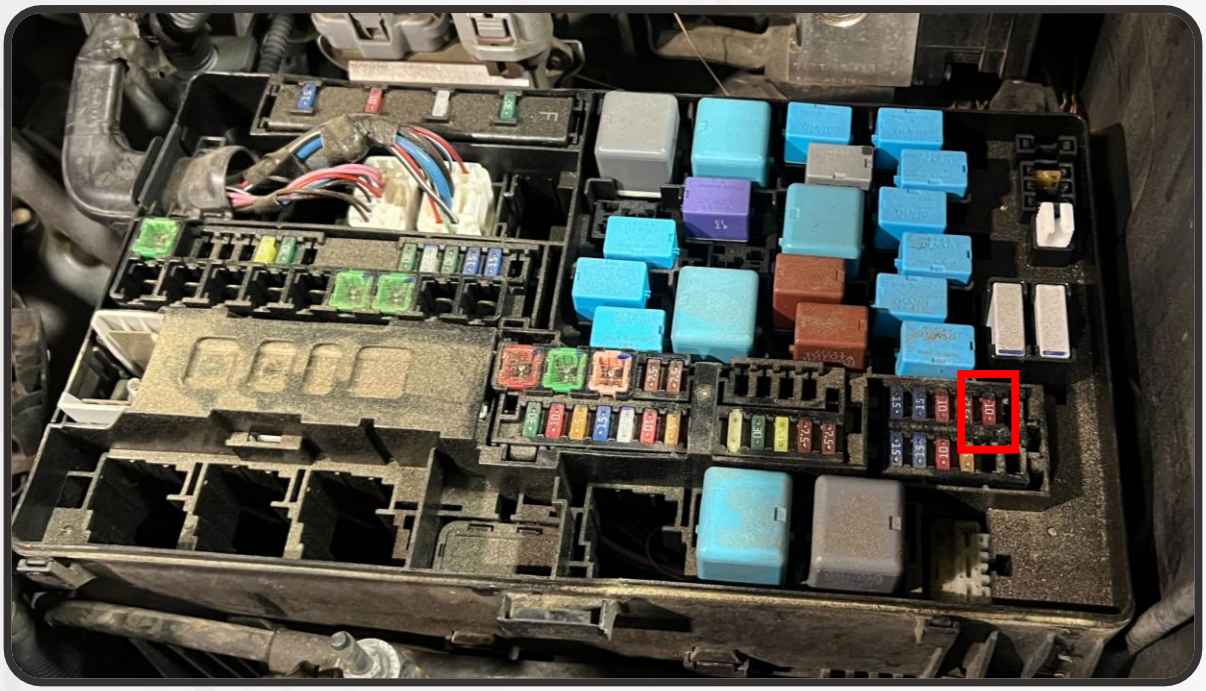
12. CONNECT THE NEW SUPERCHARGED DRIVER TO THE INTERNAL HEADLIGHT WIRING, MAKING SURE THE TAB ON EACH OF THE CONNECTOR'S CLIPS SECURELY INTO PLACE. APPLY A THIN LAYER OF THE INCLUDED GREASE TO THE SEAL ON THE NEW DRIVER WHERE IT SEALS AGAINST THE HOUSING



13. ALIGN THE TABS ON THE SUPERCHARGED DRIVER WITH THE NOTCHES IN THE HOLE ON THE HOUSING AND PRESS THE DRIVER STRAIGHT INTO THE MOUNTING LOCATION. MAKE SURE THE RUBBER SEAL IS SEATED PROPERLY AND DOES NOT GET PINCHED OR BUNCHED UP. SECURE THE DRIVER TO THE HOUSING BY ROTATING IT CLOCKWISE UNTIL IT STOPS TURNING

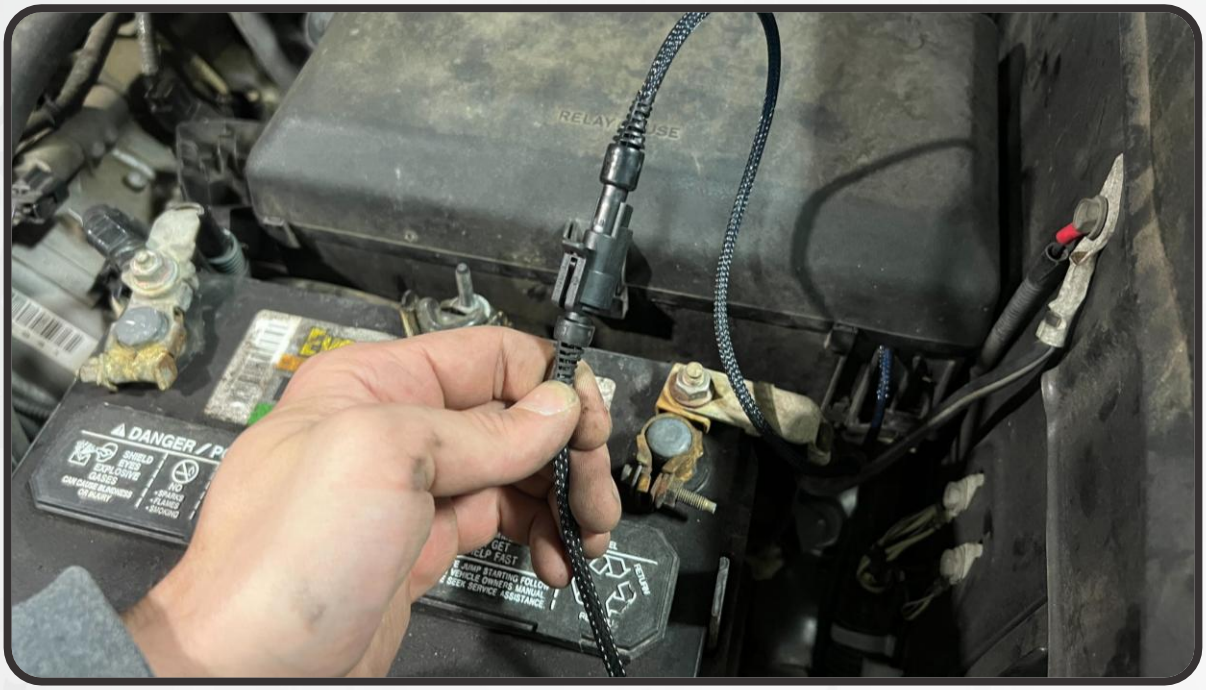


14. OPEN THE FUSE BOX LOCATED BEHIND THE DRIVER-SIDE HEADLIGHT. LOCATE AND REMOVE THE 10A IGN FUSE

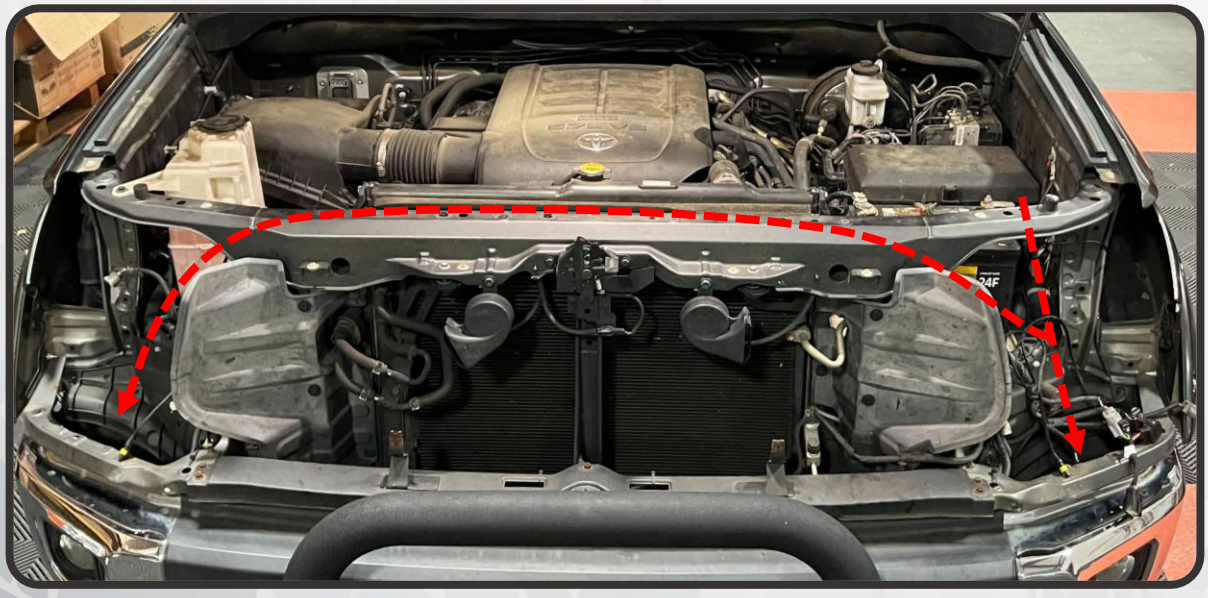


15. INSTALL THE PROVIDED FUSE TAP INTO THE FUSE SLOT. THE FUSE TAP FEATURES A 5.5MM/7/32" GROMMET TO PASS OUT OF THE FUSE BOX. USING A DRILL OR A SMALL CUTTING TOOL, MAKE A NOTCH IN THE SIDE WALL OF THE FUSE BOX LID SO THAT THE LID CAN CLOSE OVER THE GROMMET

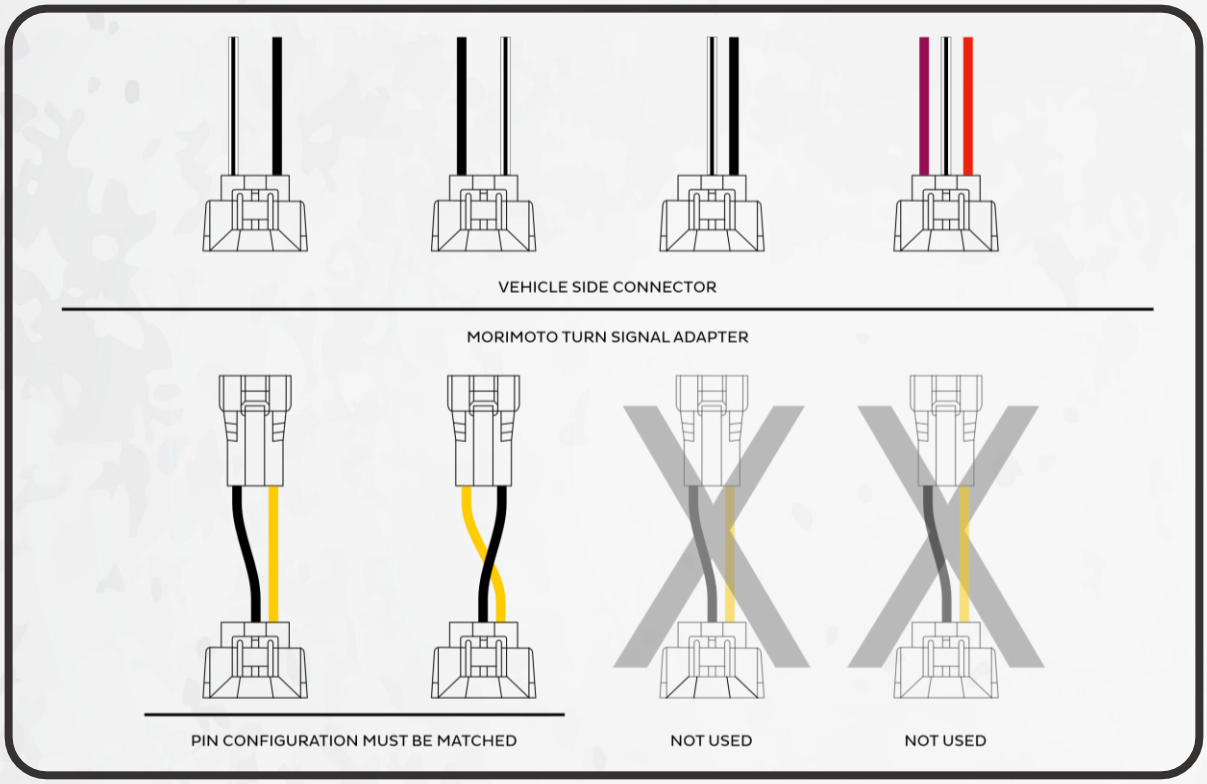
16. CONNECT THE SECOND-LONGEST END OF THE DRL HARNESS TO THE FUSE TAP



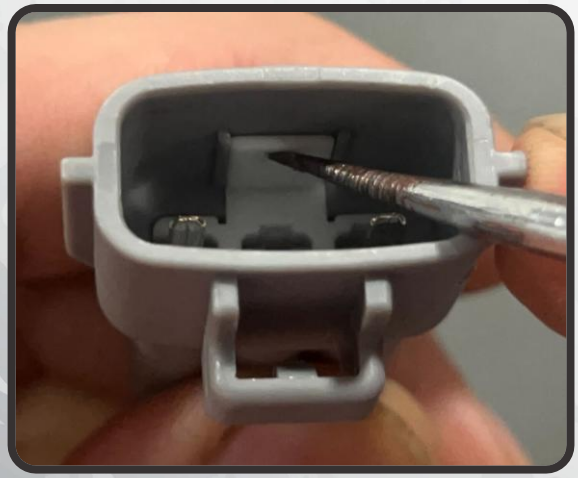
17. ROUTE THE SHORTER END OF THE DRL HARNESS FORWARD TO THE DRIVER-SIDE HEADLIGHT CAVITY, AND THE LONGER END ACROSS THE RADIATOR SUPPORT TO THE PASSENGER-SIDE HEADLIGHT CAVITY

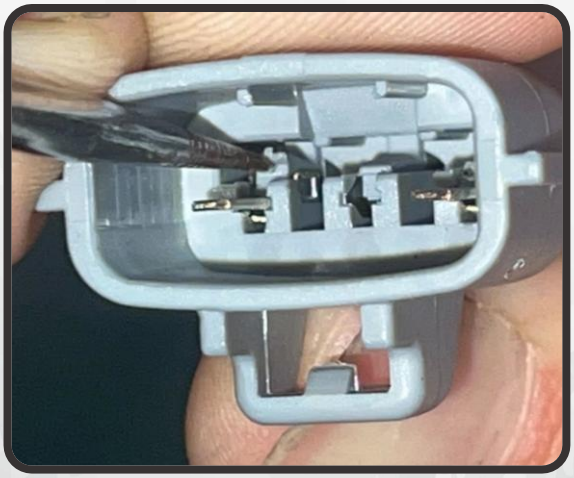


18. 2014-2021 TUNDRAS HAVE FOUR DIFFERENT TURN SIGNAL WIRING SCHEMATICS. WITH THE MORIMOTO TURN SIGNAL ADAPTERS, MATCH YOUR VEHICLE-SIDE CONNECTION. IF YOUR TRUCK HAS THE THIRD OR FOURTH (MOST COMMON) VERSION BELOW, THE ADAPTER HARNESS IS NOT USED



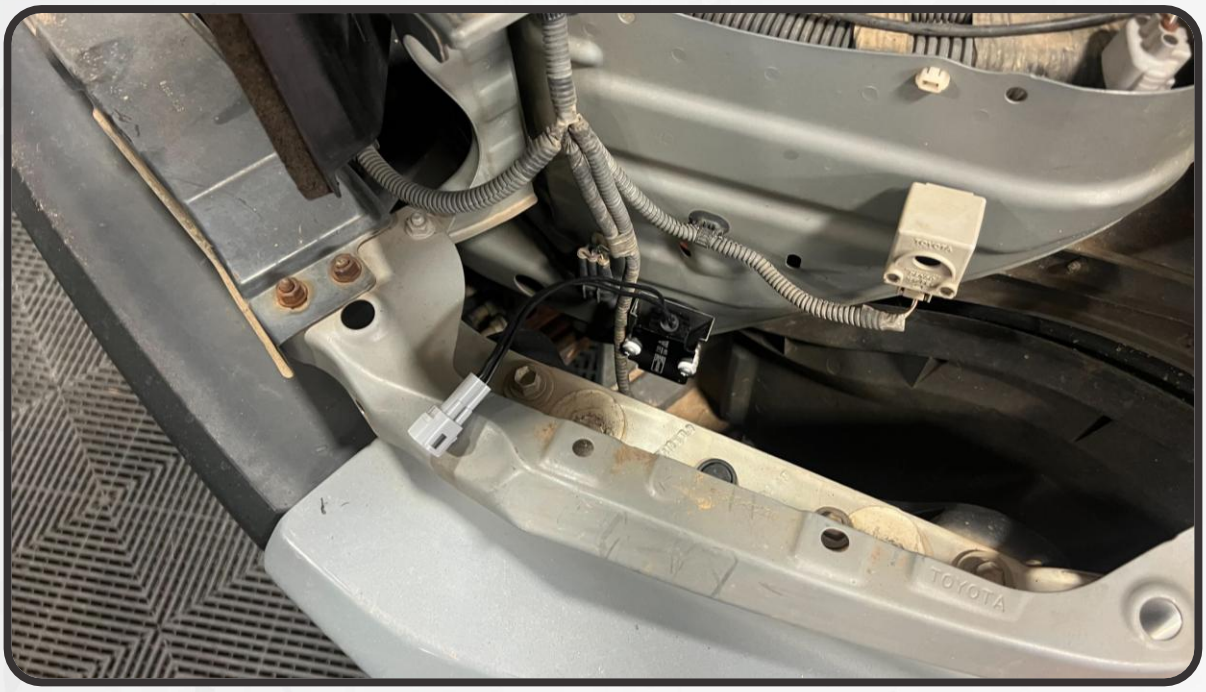
19. IF NEEDED, SWAP THE PINS ON THE MALE-SIDE BY FIRST USING A THIN PICK TO PRY OUT THE WHITE PIN RETAINER, THEN USE THE PICK TO LIFT UP ON THE LOCKING-TAB AND PULL THE PIN OUT OF THE CONNECTOR. ARRANGE THE PINS INTO THE CORRECT PINOUT FOR YOUR APPLICATION, CONFIRM THE LOCKING-TABS ARE SECURING THE PINS, AND REINSTALL THE PIN RETAINER. REPEAT WITH THE OTHER ADAPTER, AND INSTALL BOTH ONTO EACH OF YOUR TURN SIGNAL CONNECTORS





WIRING

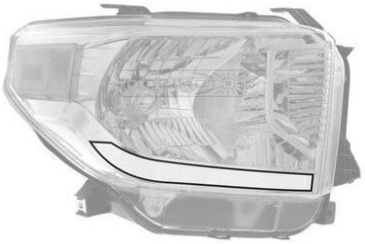
20. ATTACH ONE OF THE PROVIDED MAGNET-MOUNT RESISTORS INTO EACH HEADLIGHT CAVITY. MAKE SURE IT IS OUT OF THE WAY OF THE HEADLIGHT ASSEMBLY



21. IDENTIFY YOUR TRUCK'S FACTORY HEADLIGHTS BELOW AND INSTALL THE APPROPRIATE INPUT HARNESS ON BOTH SIDES OF THE VEHICLE

- HALOGEN LOW/HIGH WITH INCANDESCENT DRL – PROCEED TO STEP 22
- HALOGEN LOW/HIGH WITH LED DRL – PROCEED TO STEP 23
- LED LOW/HIGH WITH LED DRL – PROCEED TO STEP 24

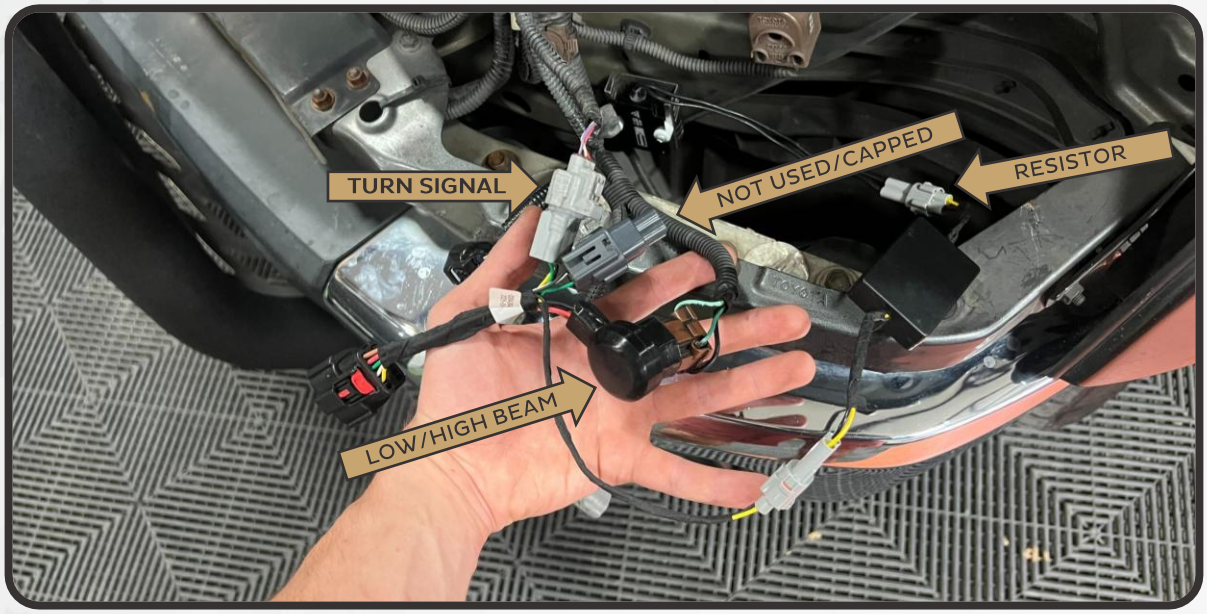
2014-2021
H4 HALOGEN LOW/HIGH
INCANDESCENT DRL



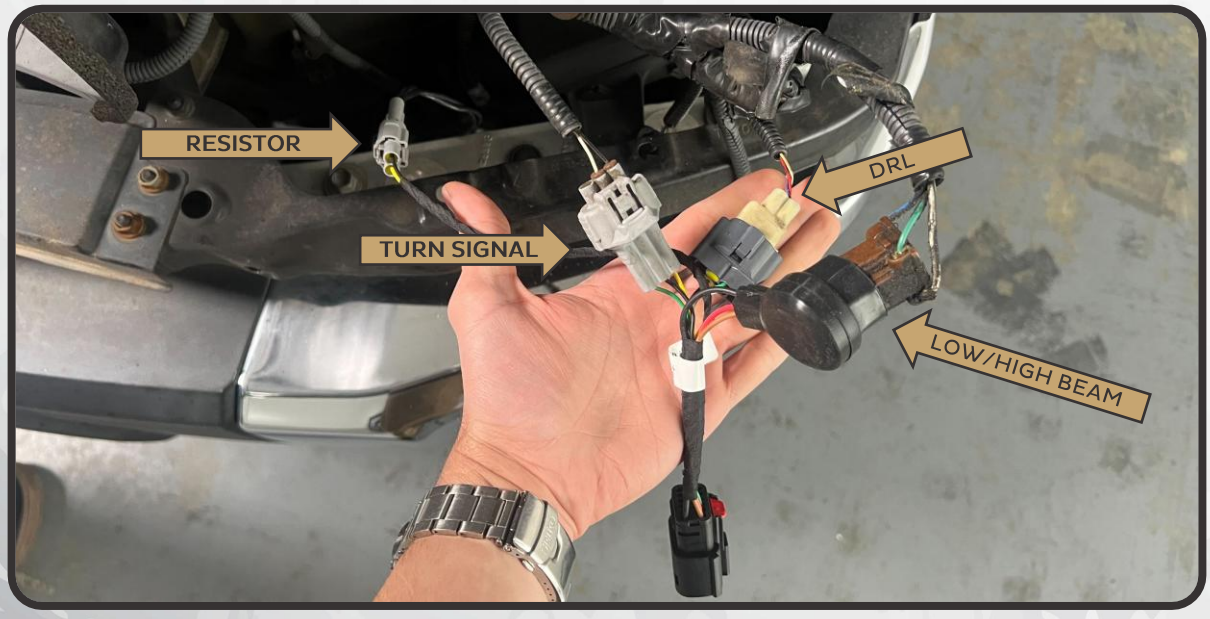
2014-2021
H4 HALOGEN LOW/HIGH
LED DRL

2018-2021
LED REFLECTOR LOW/HIGH
LED DRL

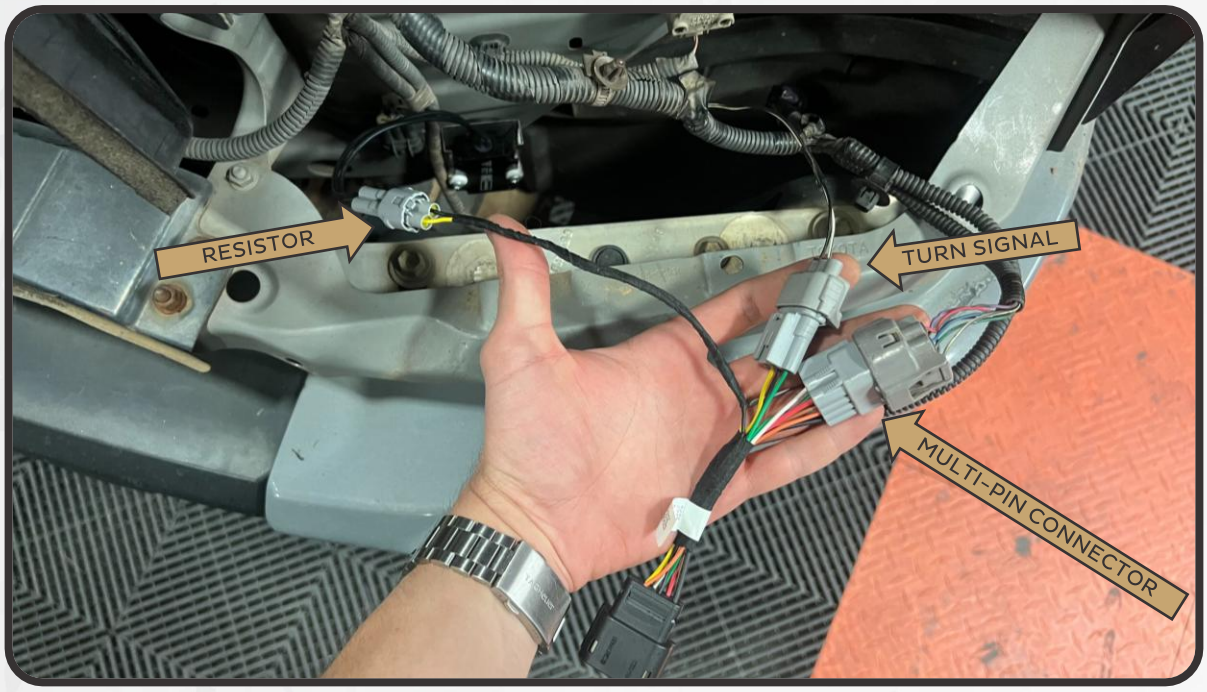
22. HALOGEN LO/HI WITH INCANDESCENT DRL: CONNECT THE HALOGEN INPUT HARNESS TO THE OE LO/HI AND TURN SIGNAL PLUGS ON THE VEHICLE. CONNECT THE RESISTOR AND THE MATCHING CONNECTOR ON THE ADAPTER HARNESS. THE GREY 4-PIN CONNECTOR WILL REMAIN CAPPED-OFF



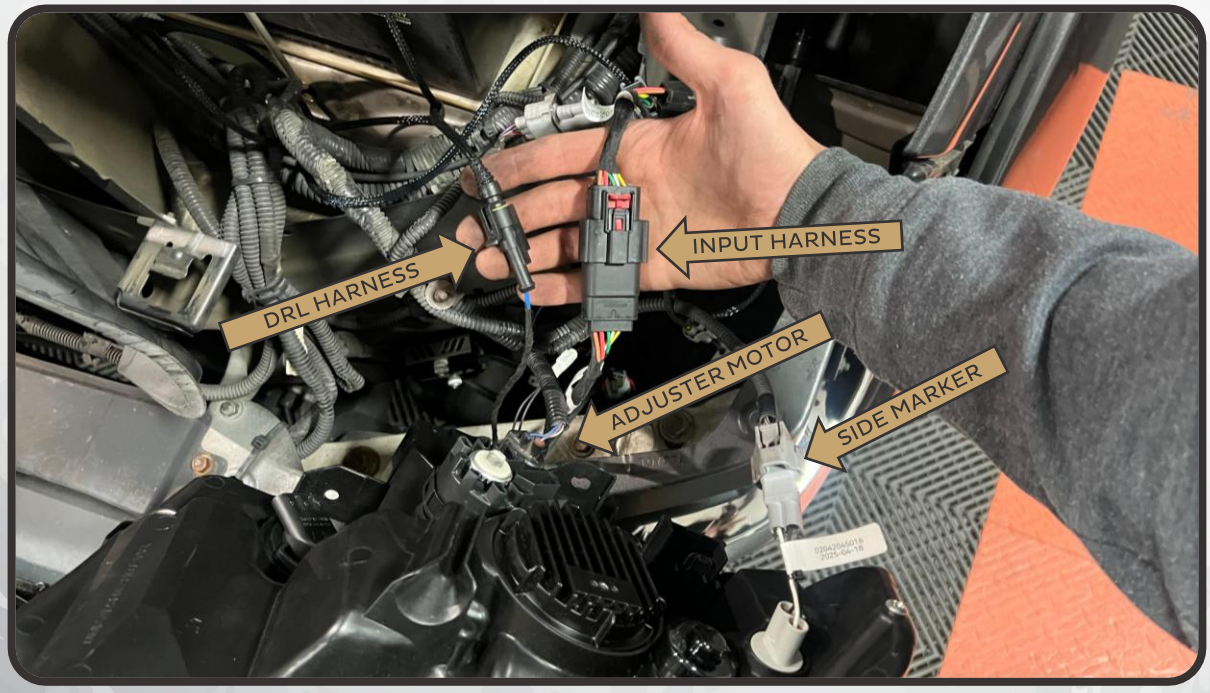
23. HALOGEN LO/HI WITH LED DRL: CONNECT THE HALOGEN INPUT HARNESS TO THE OE LO/HI AND TURN SIGNAL PLUGS ON THE VEHICLE, AS WELL AS THE RESISTOR. REMOVE THE CONNECTOR CAP FROM THE GREY 4-PIN CONNECTOR ON THE INPUT HARNESS AND CONNECT IT TO THE VEHICLE'S OE DRL PLUG



24. LED LO/HI WITH LED DRL: CONNECT THE LED INPUT HARNESS TO THE VEHICLE'S OE MULTI-PIN CONNECTOR AND TURN SIGNAL CONNECTOR, AS WELL AS THE RESISTOR



25. LIFT THE HEADLIGHT UP TO THE VEHICLE AND CONNECT THE DRL HARNESS, INPUT HARNESS, AND OE SIDE MARKER AND ADJUSTER MOTOR (IF EQUIPPED) CONNECTORS TO THE BACK OF THE HOUSING



HEADLIGHT INSTALLATION

26. FIT THE HEADLIGHT ONTO THE VEHICLE MAKING SURE NOT TO PINCH ANY OF THE WIRING AS YOU DO, AND SECURE IT TO THE TRUCK USING THE OE HARDWARE. IF YOU PLAN ON CHANGING YOUR MODE SELECTOR KEYS LATER, WE RECOMMEND ROUTING THE MODE SELECTOR WIRE TO AN ACCESSABLE LOCATION DURING HEADLIGHT INSTALL TO MAKE THIS EASY LATER

27. REPEAT STEPS 25 AND 26 ON THE OPPOSITE SIDE OF THE VEHICLE

28. GET IN THE VEHICLE 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

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

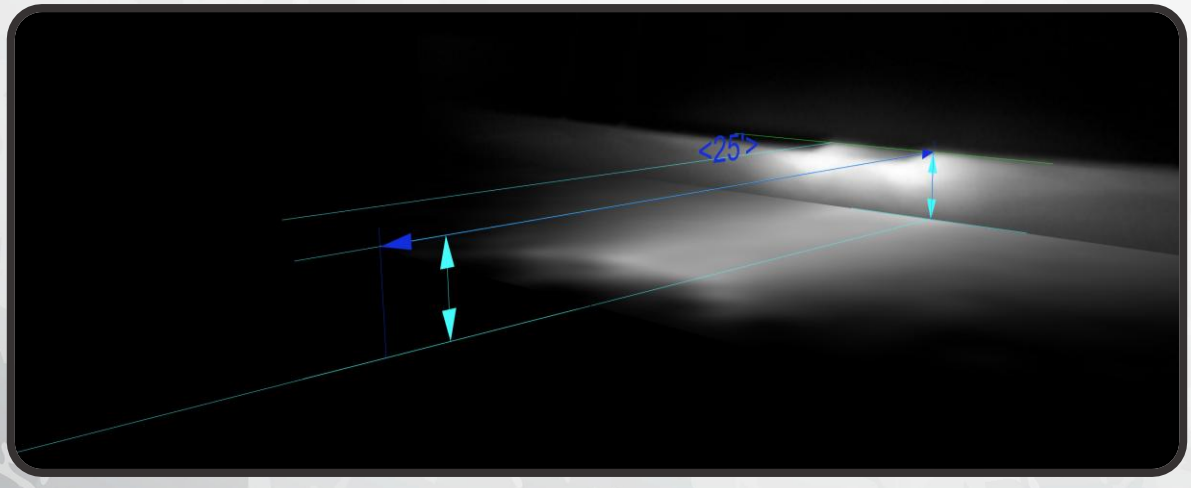
29. TUCK AND SECURE ANY LOOSE/EXCESS WIRING

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

AIMING

31. THE HEADLIGHTS COME OUT OF THE BOX AIMED FOR STOCK RIDEHEIGHT, HOWEVER IT IS RECOMMENDED TO FINE TUNE THE AIM OF YOUR LOW BEAM AFTER INSTALLATION REGARDLESS. USING A LONG PHILLIPS HEAD SCREWDRIVER DOWN THE BACKOF 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)

32. WITH THE VEHICLE PARKED ON LEVEL GROUND, 25' FROM A WALL, MEASURE THE DISTANCE FROM THE GROUND TO THE OPTICAL CENTER OF THE PROJECTOR IN THE HEADLIGHT (INDICATED BY THE SMALL CIRCULAR FEATURE ON THE HEADLIGHT LENS)
    - 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. FACTORY RIDE HEIGHT TYPICALLY FALLS IN THIS RANGE AT APPROXIMATELY 41"



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

(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

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

XB EVO HEADLIGHTS: 14-21 TOYOTA TUNDRA

- ENJOY YOUR NEW MORIMOTO XB EVO HEADLIGHTS! -