



RAVEK

**YAMAHA WOLVERINE X4 2020+
PLUG & PLAY AUTO-
CANCEL UTV TURN SIGNAL KIT**

WITH WHITE RUNNING LIGHTS



INSTRUCTION MANUAL



RAVEK

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WITH WHITE RUNNING LIGHTS

Part #: 69-105

Fitment: YAMAHA WOLVERINE X4 2020+

PARTS INCLUDED:

- Turn Signal Controller (1x)
- Switchback Apex Light (2x)
- Taillight Harness (2x)
- Power Harness (1x)
- Horn (1x)
- Turn Signal Rocker Switch w/ Extension Harness (1x)
- Horn/Hazards Rocker Switch (1x)
- Turn Signal Rocker Switch Extension Harness (1x)
- Horn/Hazards Rocker Switch Extension Harness (1x)
- Right Taillight Extension Harness (1x)
- Left Taillight Extension Harness (1x)
- Right Turn Signal Extension Harness (1x)
- Left Turn Signal Extension Harness (1x)
- Right Dash Indicator Harness (1x)
- Left Dash Indicator Harness (1x)
- Dash Indicator (2x)
- Dielectric Grease (1x)
- Heat Shrink (1x)
- Wire Loom (1x)
- Roll Bar Adapter (2x)
- Strap (2x)
- Zip Tie (20x)
- Double Sided Tape (2x)
- M6 Flat Washer (2x)
- M5 x 0.8 x 6mm Allen Screw (4x)
- M6 x 1.0 x 10mm Allen Cap Screw (2x)
- Adhesive Promoter Wipe (3x)
- Rubbing Alcohol Wipe (3x)
- License Plate Extension Harness (1x)
- License Plate Illuminator (1x)

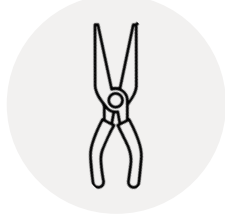
TOOLS NEEDED: **OPTIONAL*



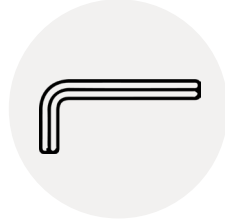
Side Cutter Pliers



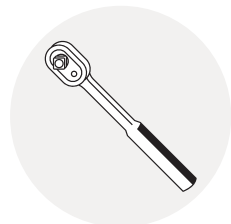
Push Pin Pliers



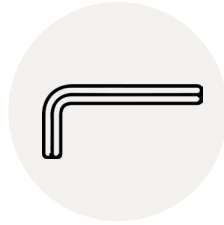
Needle Nose Pliers



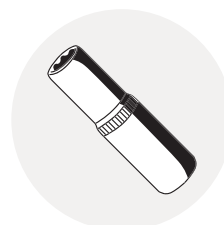
3mm Allen Wrench



Ratchet



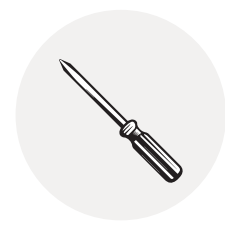
4mm Allen Wrench



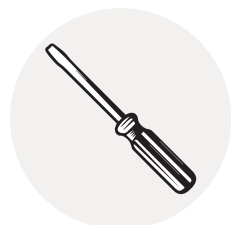
*10mm
Socket*



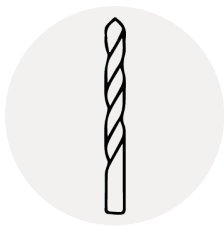
Lighter/Heat Gun



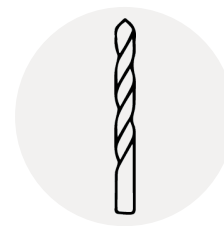
*Phillips
Screwdriver*



*Flathead
Screwdriver*



*1/4" drill bit**



*11/32" drill bit**



*Drill**



*Wire Fish**

INSTALL VIDEO TUTORIAL

**DON'T LIKE INSTRUCTIONS?
VISIT OUR WEBSITE
TO ACCESS THE
VIDEO TUTORIAL.**

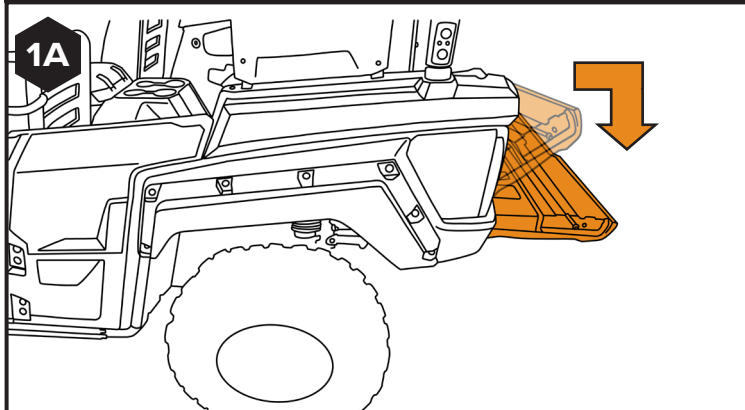


General Notes:

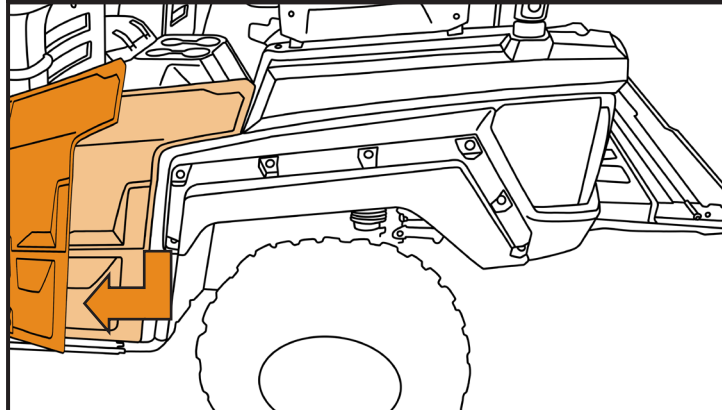
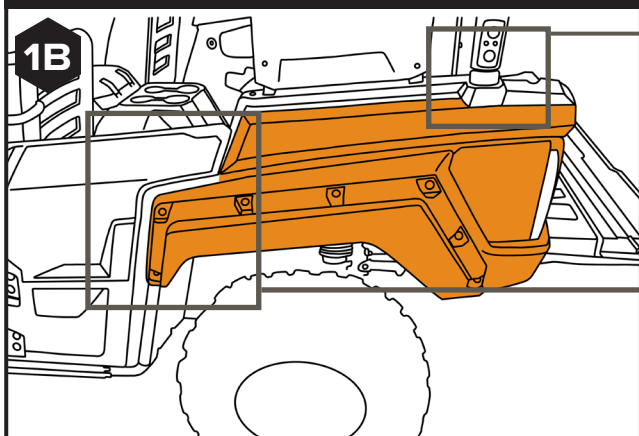
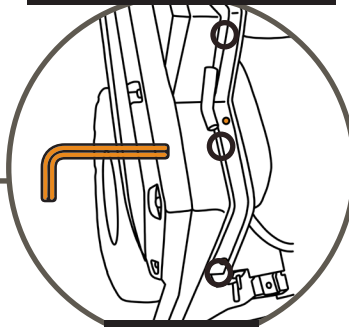
- *Throughout this process, be sure to keep track of any screws or fasteners you remove and reinstall them in the exact location.*
- *Dielectric grease is provided, and you may use it for added protection.*

Remove the hardware securing the side covers, then place the cover on the tire. [SEE FIGURES 1A – 1D]

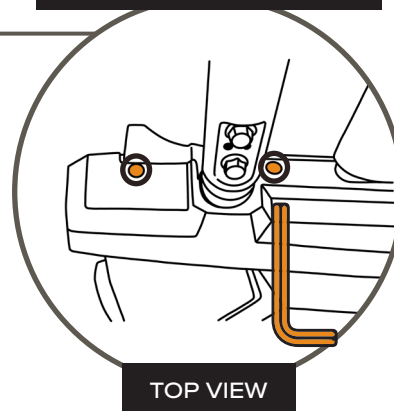
OPEN TAILGATE



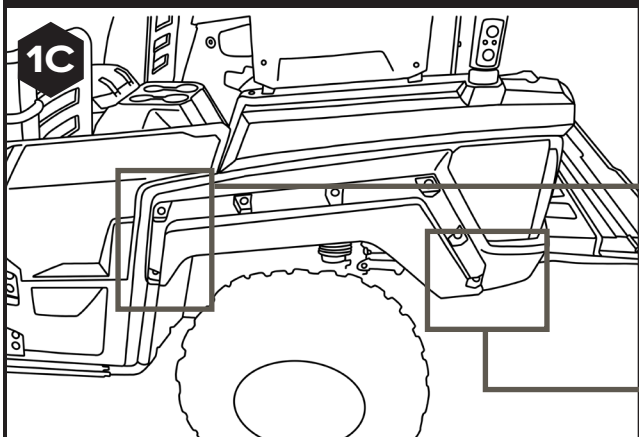
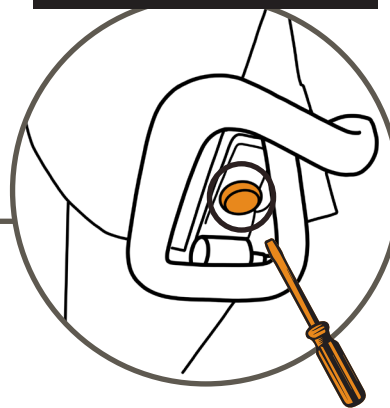
OPEN PASSENGER DOOR

REMOVE THE 5 ALLEN SCREWS
ON TOP OF SIDE COVER3 ALLEN SCREWS
BY DOOR

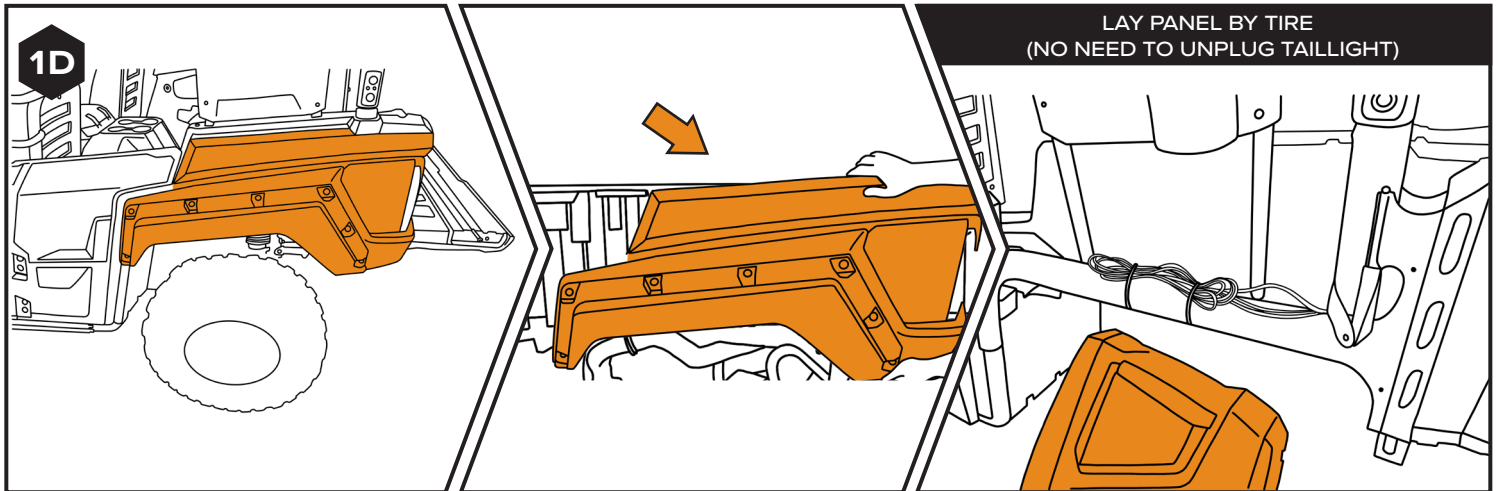
TOP VIEW

2 ALLEN SCREWS
NEAR TAILLIGHT

TOP VIEW

REMOVE THREADED PUSH PIN BY LATCH
AND BOLT UNDERNEATH TAILLIGHTTHREADED PUSH
PIN BY LATCH10MM BOLT UNDERNEATH
TAILLIGHT

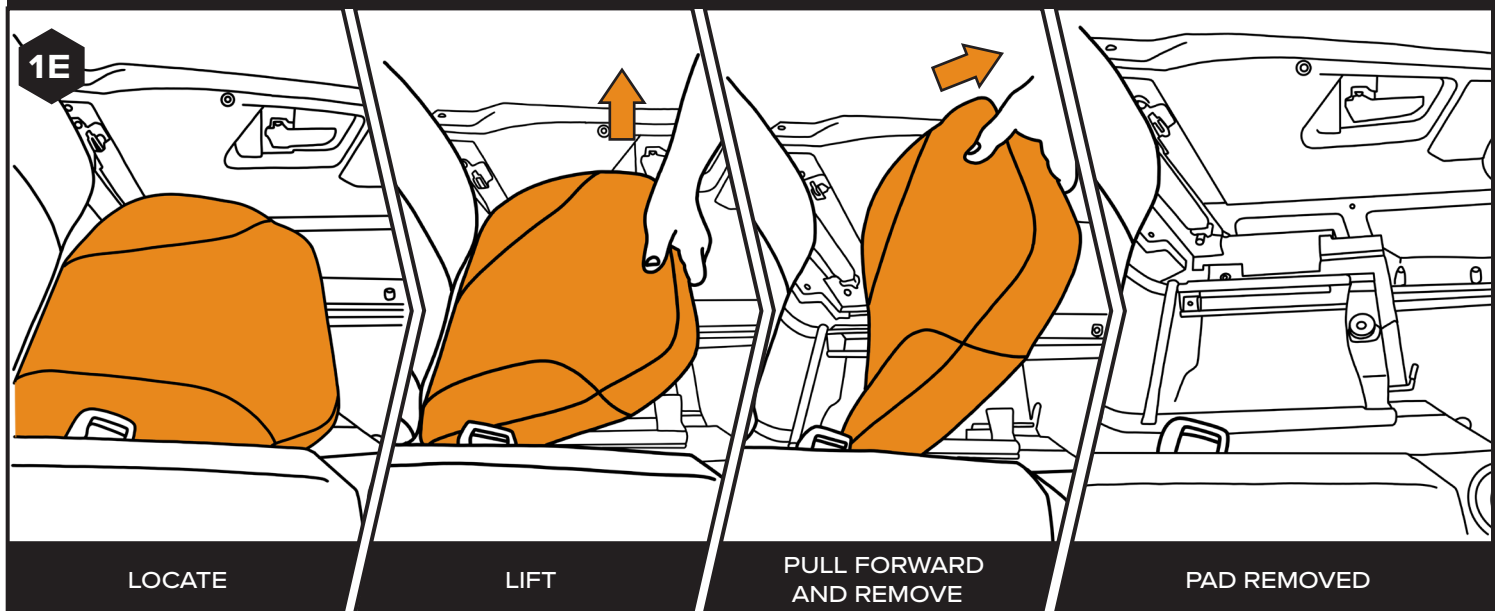
REMOVE FASTENERS TO TAKE OFF BED SIDE COVERS



ii

Lift and pull the front bottom seat pads forward, then remove and set them aside. [SEE FIGURE 1E]

REMOVE THE FRONT BOTTOM SEAT PADS

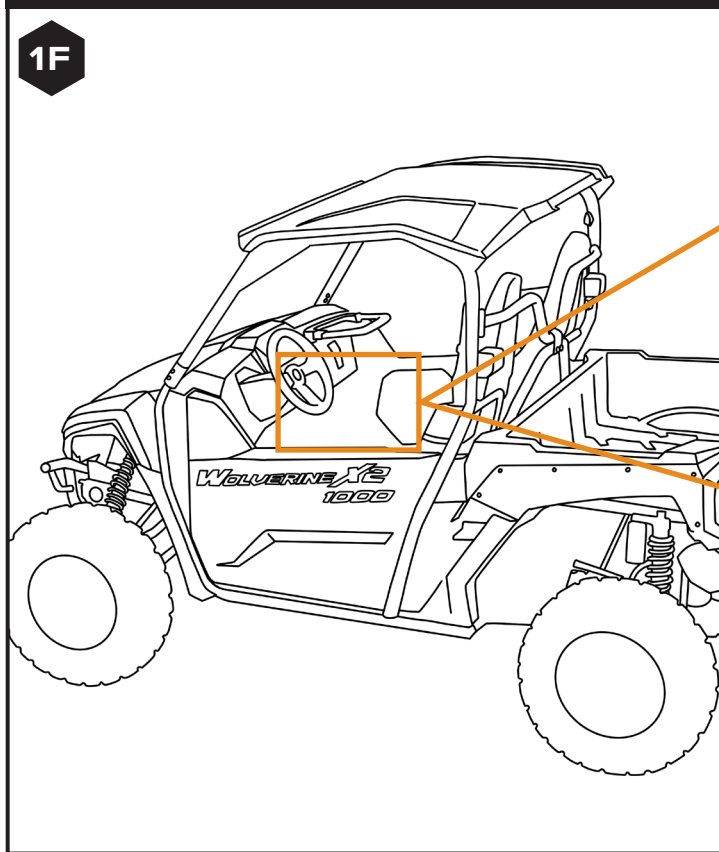




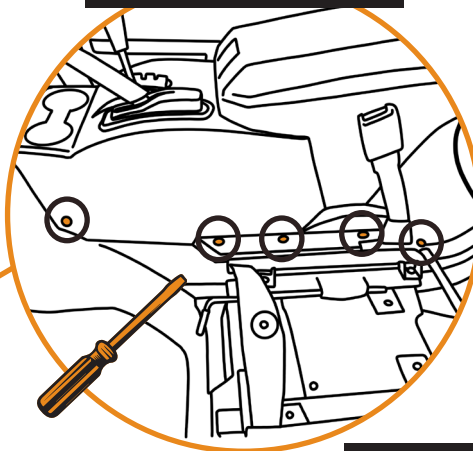
Remove the hardware securing the center console, then remove the center console and set it aside. [SEE FIGURE 1F & 1G]

REMOVE FRONT CENTER CONSOLE THREADED PUSH PINS

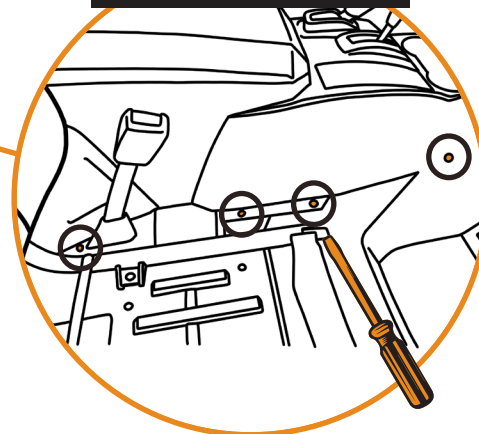
1F



DRIVER SIDE VIEW

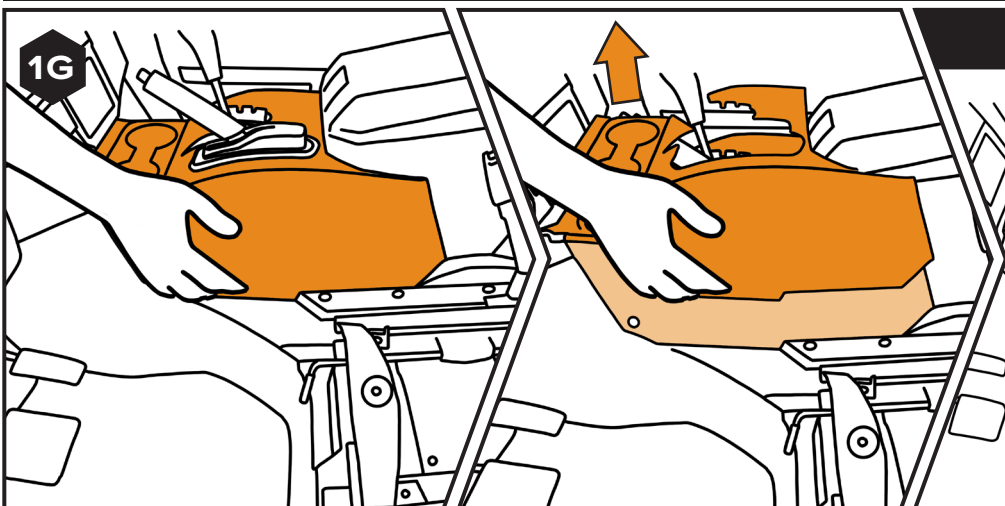


PASSENGER SIDE VIEW

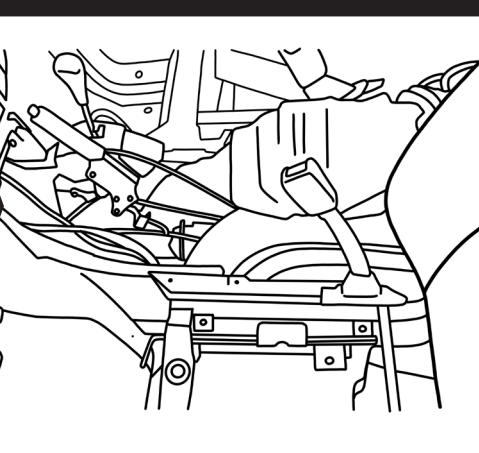


REMOVE CENTER CONSOLE

1G



REMOVED CENTER CONSOLE VIEW

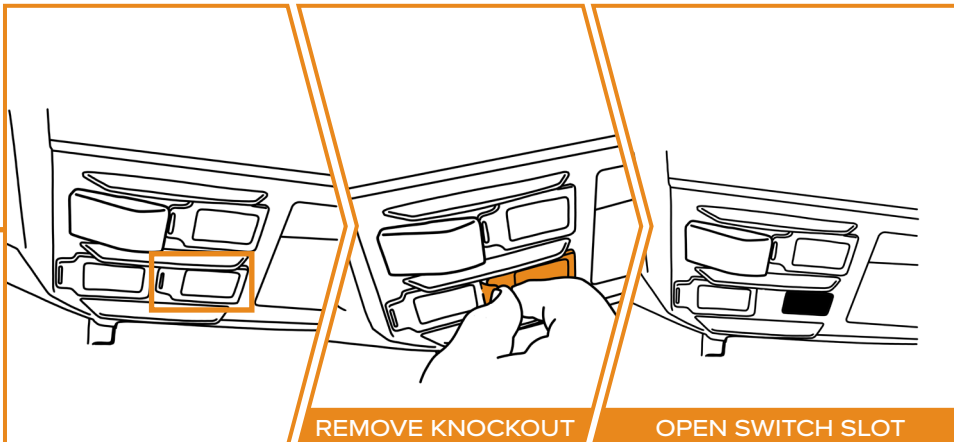
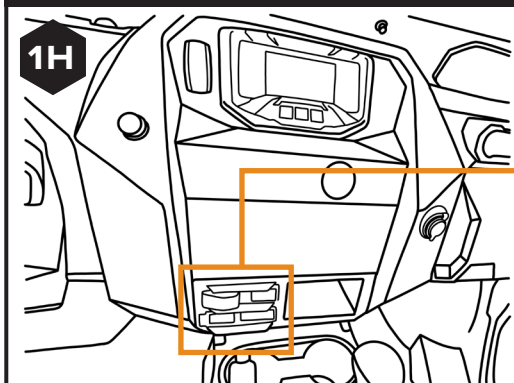


iv

Locate an open rocker switch knockout on the dashboard and carefully pull it off to remove. [SEE FIGURE 1H]

LOCATE YOUR SWITCH PANEL

1H



REMOVE KNOCKOUT

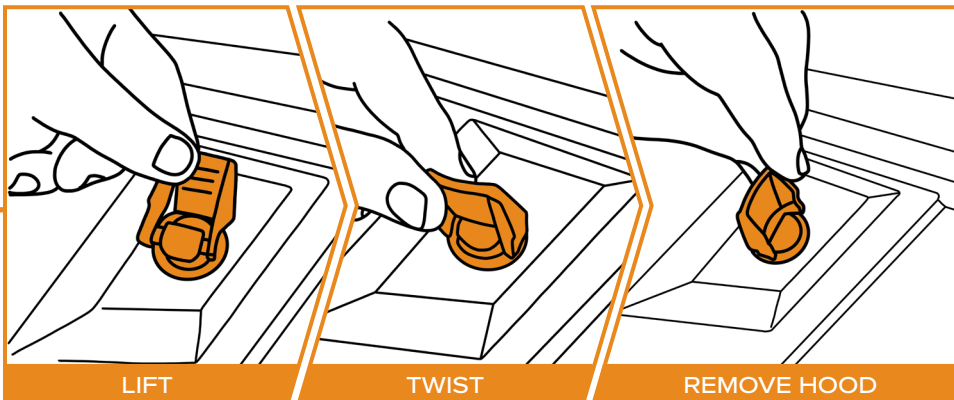
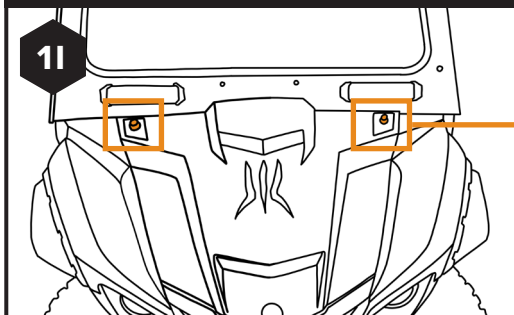
OPEN SWITCH SLOT

v

Remove the hood to access the battery. [SEE FIGURE 1I]

RELEASE LOCK PINS TO REMOVE HOOD

1I



LIFT

TWIST

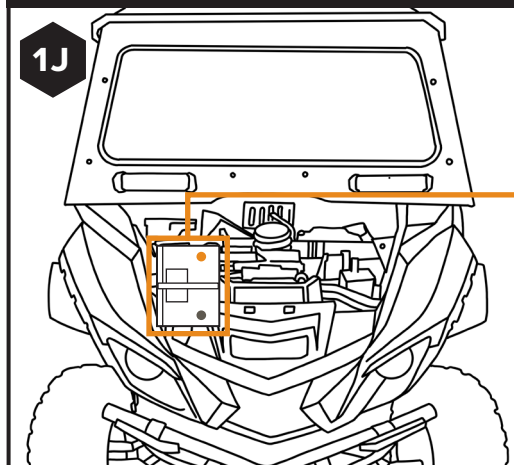
REMOVE HOOD

vi

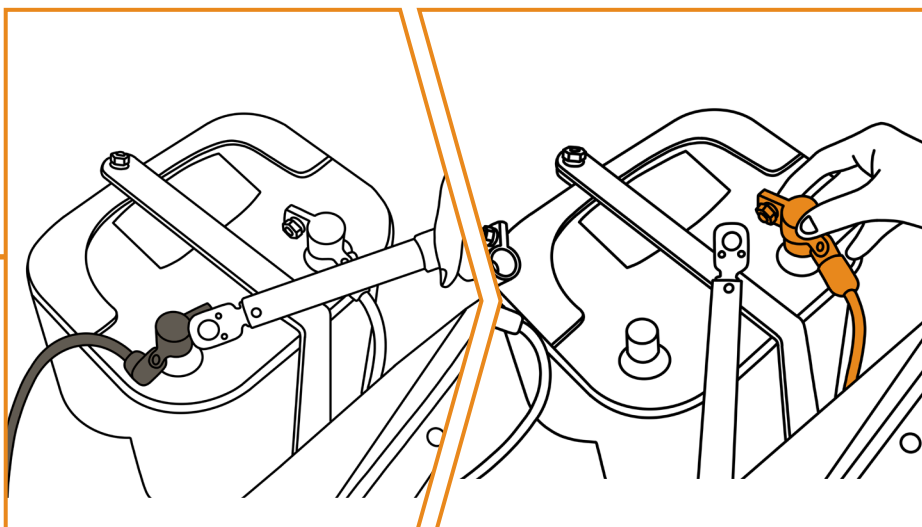
Locate the battery, and disconnect the negative terminal first, then the positive. [SEE FIGURE 1J]

LOCATE BATTERY

1J



REMOVED HOOD LOOK



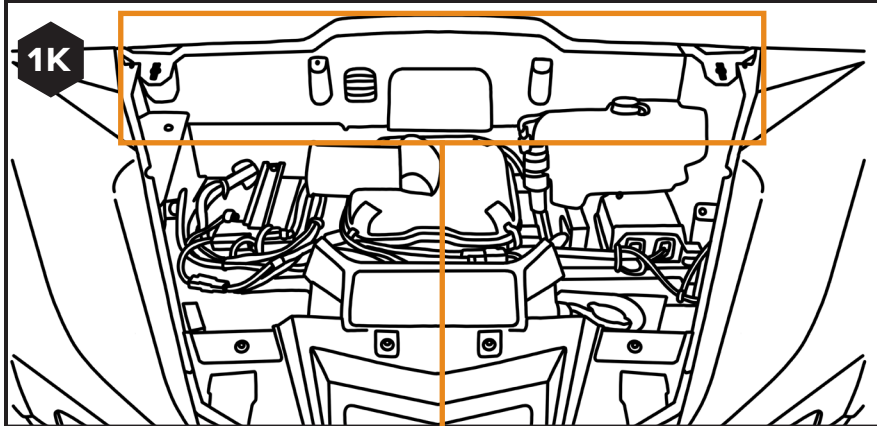
DISCONNECT NEGATIVE FIRST

DISCONNECT POSITIVE NEXT

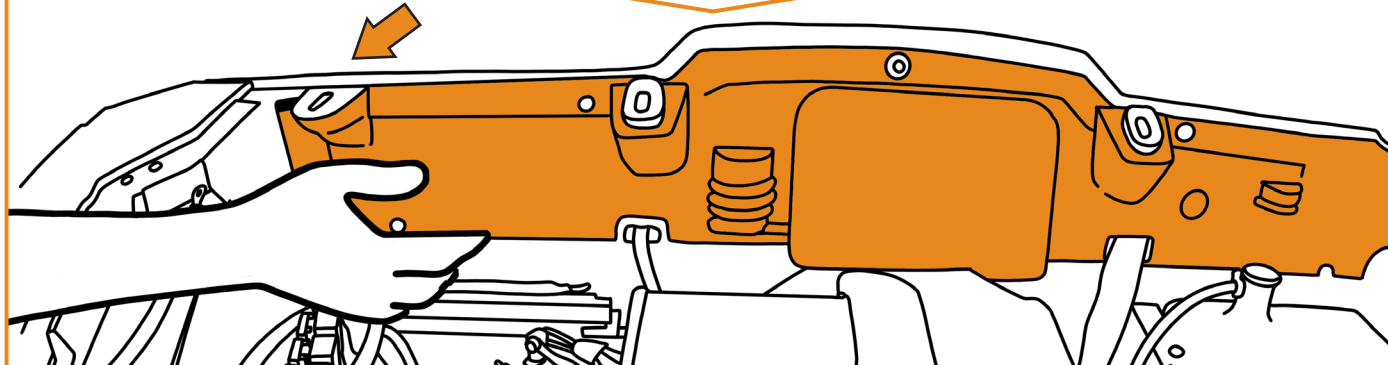
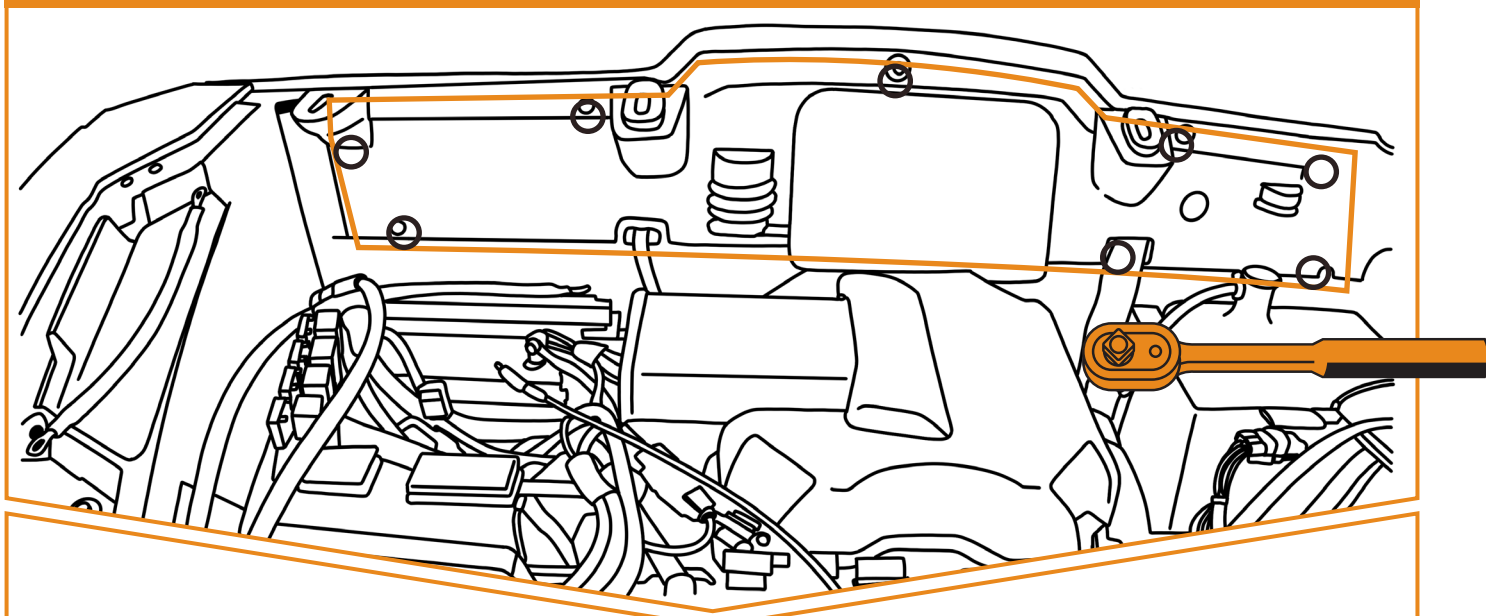
vii

Using a 10MM SOCKET and RATCHET remove the firewall panel. Access the 12V accessory plugs behind panel removed. [SEE FIGURES 1K & 1L]

REMOVE FIREWALL PANEL

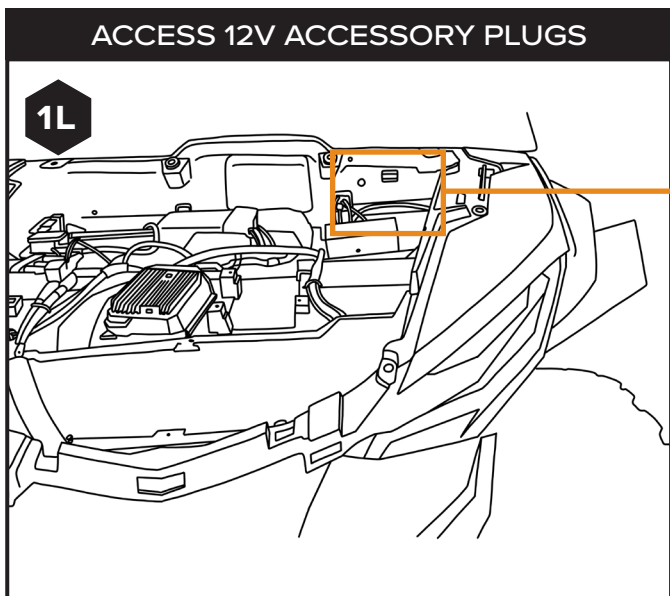


REMOVE HARDWARE USING 10MM SOCKET AND RATCHET

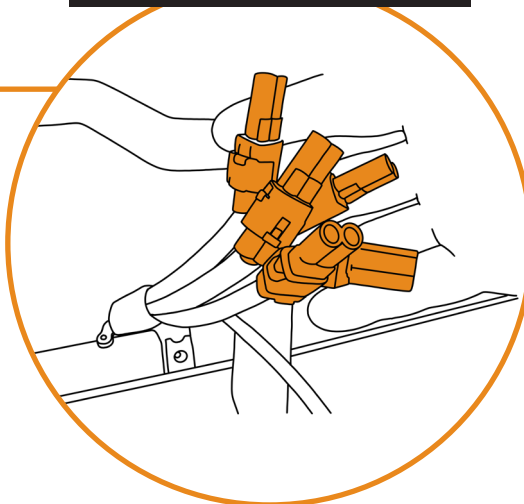


REMOVE FIREWALL

ACCESS 12V ACCESSORY PLUGS



12V ACCESSORY PLUGS



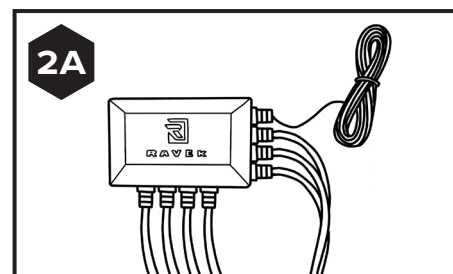
2

INSTALL THE WIRING TO THE TURN SIGNAL CONTROLLER

i

Grab your Turn Signal controller and place it where you plan to permanently mount it in a future step. [SEE FIGURE 2A]

NOTE: We recommend mounting your controller under the hood removed in step 1i.



ii

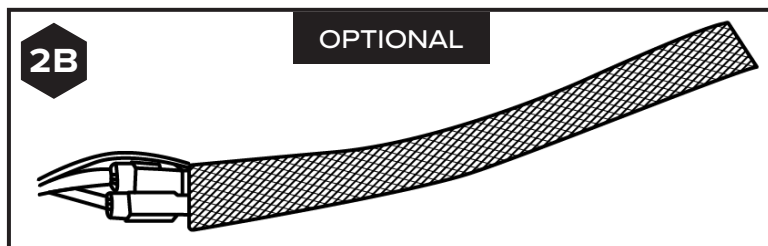
Connect your rear extension wires, optionally adding mesh wire loom to the left rear and brake input wires. Although our connectors are waterproof, we suggest adding a small amount of dielectric grease to each connection point for extra protection. [SEE FIGURES 2B & 2C AND DIAGRAM A FOR CONNECTION OVERVIEW]

NOTE: Each extension harness has labeled heat shrink to show where it plugs in. [SEE DIAGRAM A]

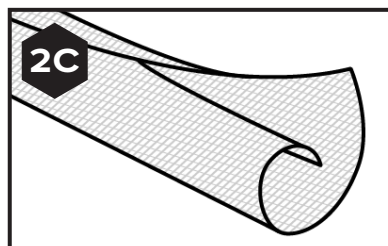
NOTE: The Brake Input red wire does not have an extension harness and will be connected directly to the driver's side taillight harness in a later step.

2B

OPTIONAL



2C

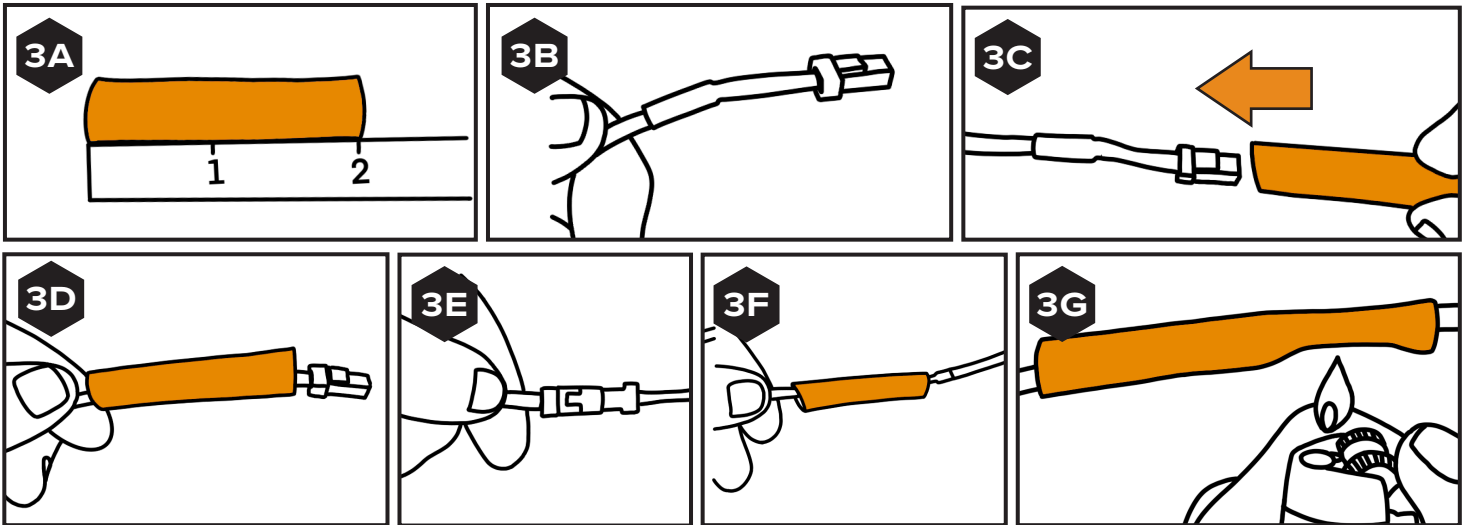


i

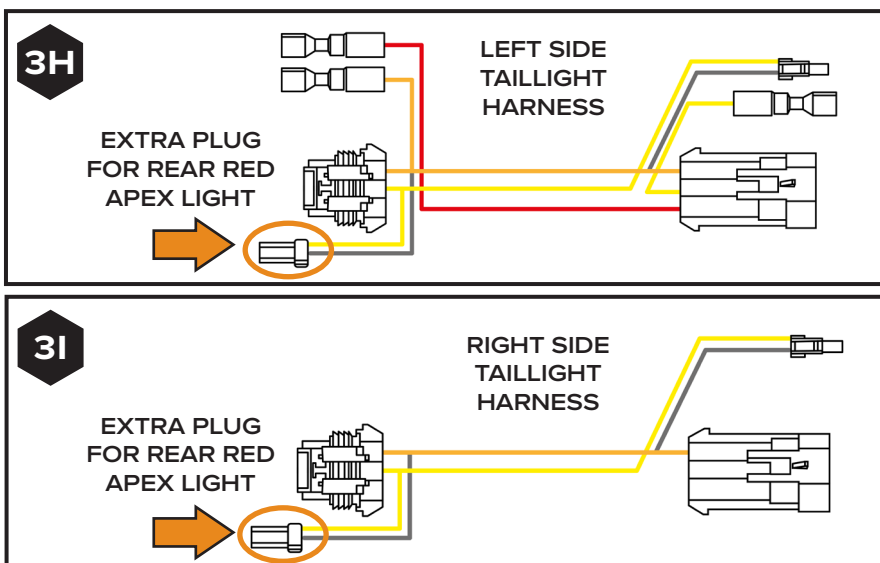
As you make plug & play connections, use the heat shrink tubing, provided to protect your connections from dirt on the trails.

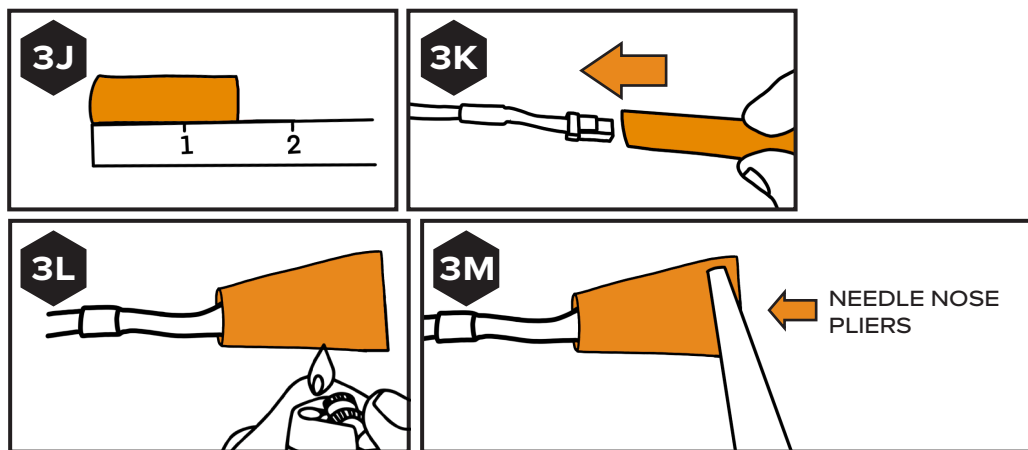
Go over the connection points you make and cut 2" of heat shrink for each. Use a lighter or heat gun to shrink the tubing. [SEE FIGURES 3A – 3G]

HEAT SHRINK CONNECTIONS



If you don't need the extra Taillight Harness connectors (mentioned in a future step), cut a 1.5-inch piece of heat shrink tubing and slide it over the connector. Use a lighter or heat gun to shrink the tubing, then use needle-nose pliers to pinch the end. This will seal the connector and keep dirt out. [SEE FIGURES 3H – 3M]





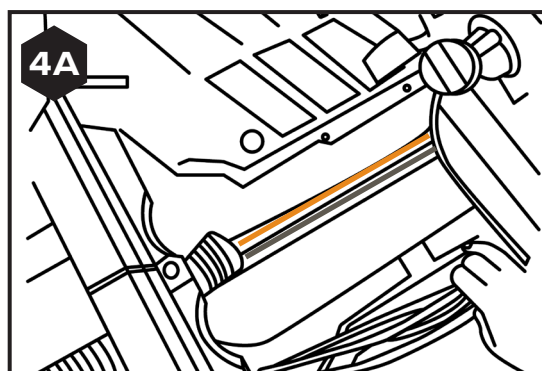
4

ROUTE THE REAR LIGHT WIRING

i

Grab your Rear Left extension, Rear Right extension, and Brake Input wire.

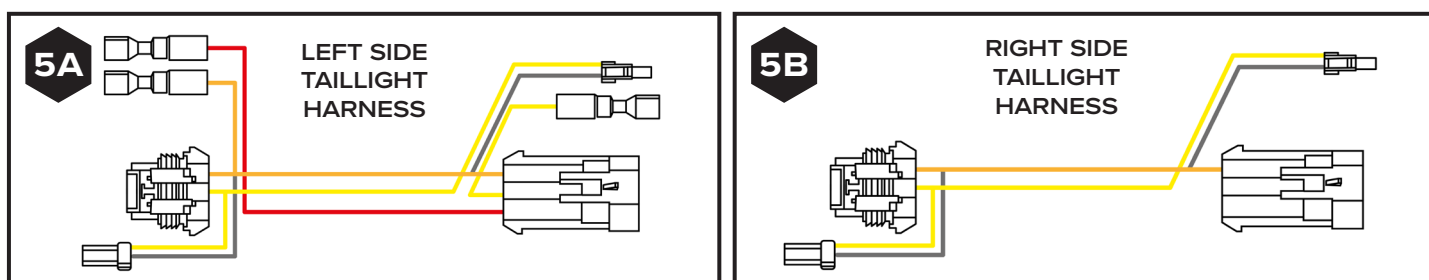
Route the LEFT REAR and Brake Input wires through the floor tunnel panels to the left taillight and route the RIGHT REAR wire to the right taillight. [SEE FIGURE 4A]



i

With the rear wiring connected to the controller and routed to the taillights, you can now install the taillight harnesses included in the kit. [SEE FIGURES 5A & 5B]

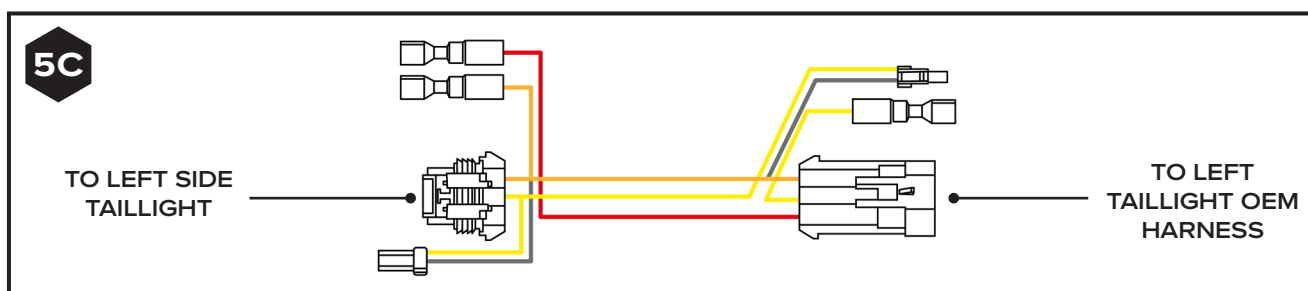
NOTE: The left-side Taillight Harness can be identified by having the most connectors attached to it.



ii

Unplug the OEM connector from the left taillight and connect the provided left taillight harness between the OEM connector and the taillight. [SEE FIGURE 5C]

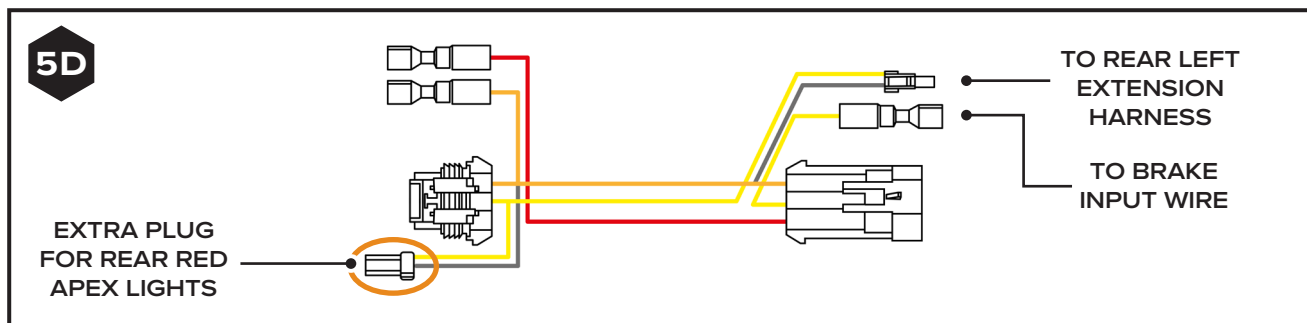
NOTE: The left-side taillight harness is the one with the most connectors attached.



iii

Plug the REAR LEFT extension harness into the corresponding labeled connector on the left taillight harness. Connect the Brake Input wire to the labeled connector on the left taillight harness. [SEE FIGURE 5D]

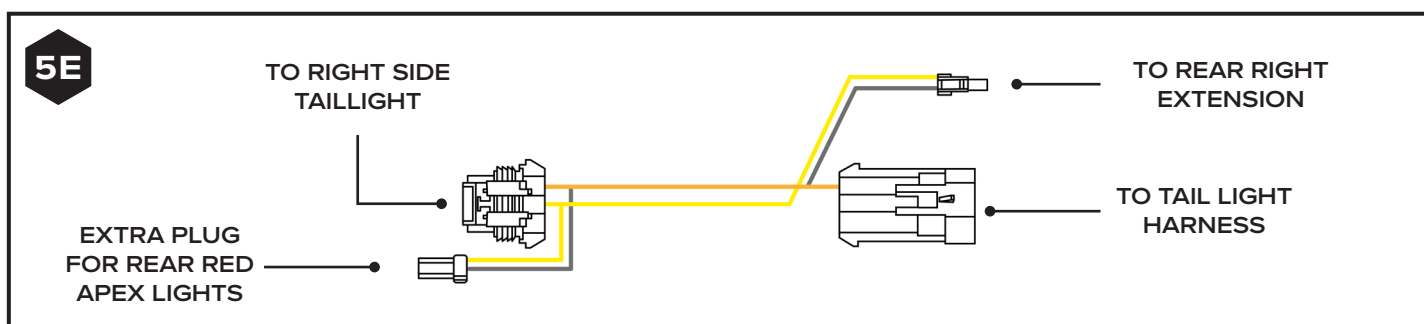
NOTE: The extra plug on the taillight harness is provided to easily add RAVEK Rear Running & Brake Apex Lights to your Wolverine X4 (RAVEK Part #69-106).



iv

Repeat the previous two steps on the right Taillight with the right-side harness provided (excluding the Brake Input information). [SEE FIGURE 5E]

NOTE: Ensure to route your rear wiring away from the exhaust system.



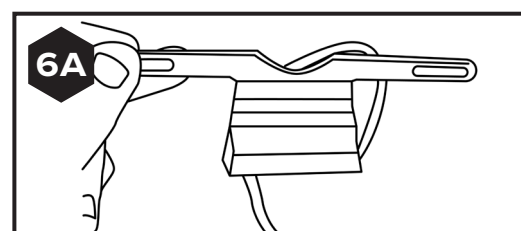
6 PLUG IN YOUR LICENSE PLATE ILLUMINATOR (OPTIONAL)

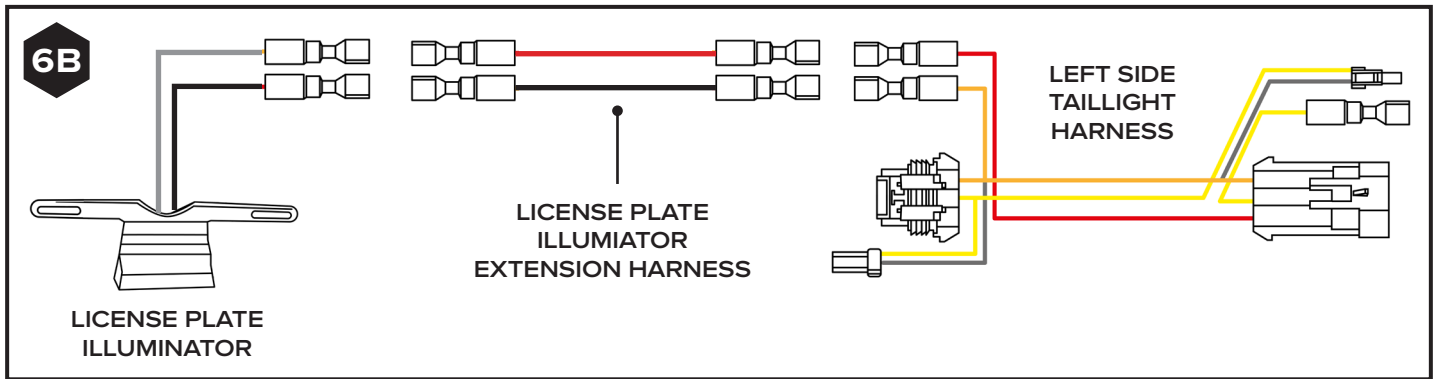
i

Locate the License Plate Illuminator provided with your kit. [SEE FIGURE 6A]

ii

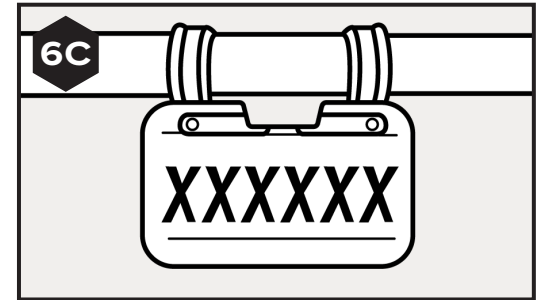
Connect the License Plate Illuminator wires (White = Power, Black = Ground) to the License Plate Illuminator Extension Harness. Then, plug the extension harness into the left Taillight Harness as labeled. [SEE FIGURE 6B]





iii

Attach the License Plate Illuminator to your license plate using the existing hardware. [SEE FIGURE 6C]



NOTE: Before driving your UTV on public roads, check your local laws to ensure compliance, including whether a license plate illuminator is required.

7

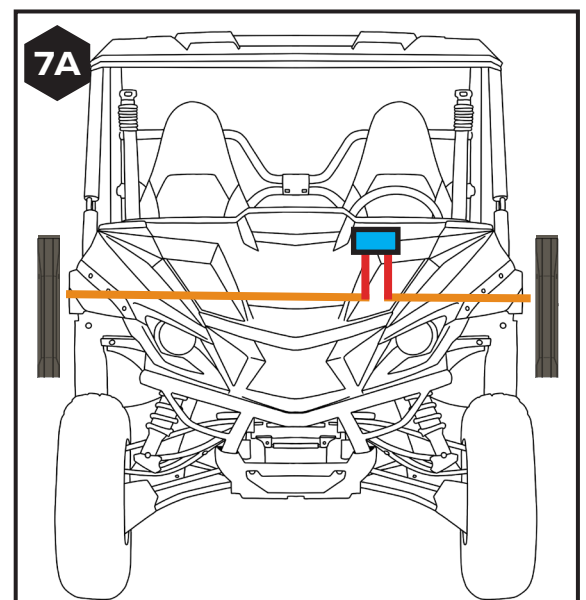
ROUTE FRONT LEFT & RIGHT TURN WIRING

i

With all the rear wiring routed (but not secured yet), go to the location of your Turn Signal Controller and take the FRONT LEFT and FRONT RIGHT wires.

ii

Route your FRONT LEFT and FRONT RIGHT extension harnesses to the front of the Wolverine, where you plan to permanently mount your Apex Turn Signal Lights. (See the next step for all mounting options.) [SEE FIGURE 7A]



8 SELECT LOCATIONS FOR APEX LIGHTS

i

Your options include:

- **Exterior Body Panel**
Any exterior panel with 8" of flat surface for mounting
- **Roof Mounting**
- **Roll Bar/Bumper Mounting**



Check out the video to the right (see QR code) for a 50 second walkthrough of the different Apex light mounting options.

9 READY TO MOUNT APEX LIGHT

i

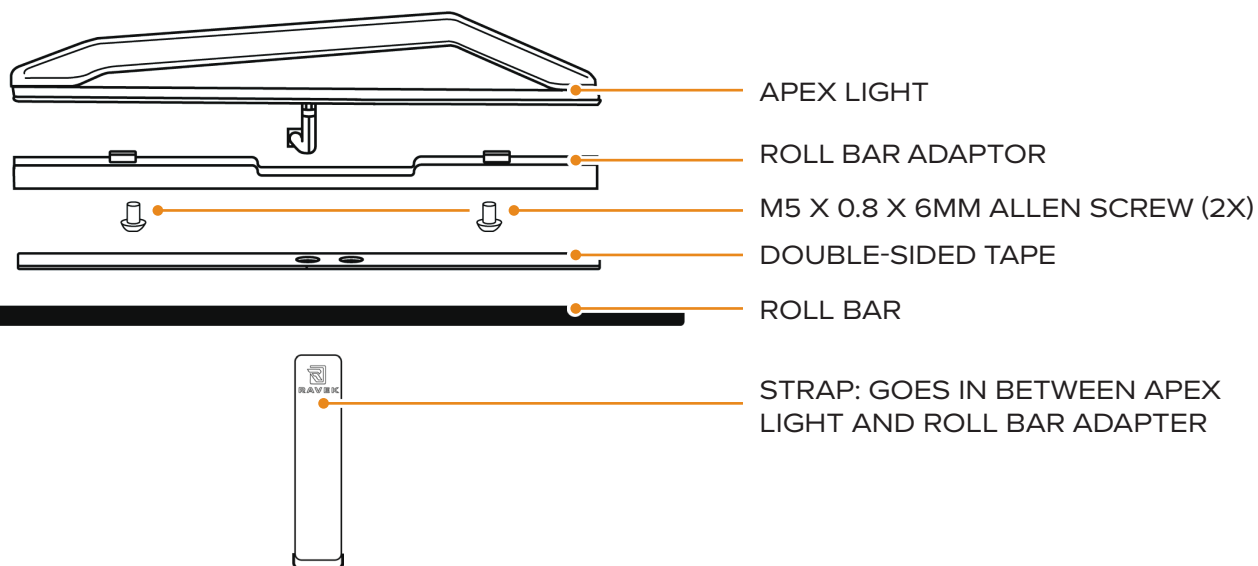
If you've chosen to mount your Apex Lights to a roll bar or bumper, follow the Roll Bar mounting steps in step 9A.

If you've decided to mount your Apex lights to an exterior panel or the roof, you'll need to choose your preferred mounting method:

- Adhesive mount (i.e. no drill) → follow step 9B**
- Drill-mount for increased security → follow step 9C**

9A OPTION A - ROLL BAR MOUNTING:

OPTION A DIAGRAM - ROLL BAR MOUNTING

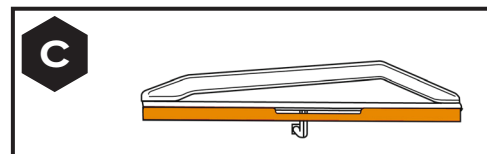
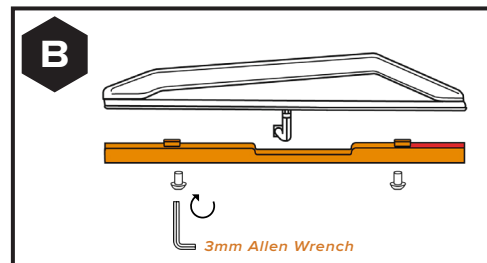
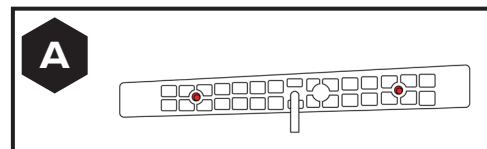




INSTALL ROLL BAR ADAPTOR

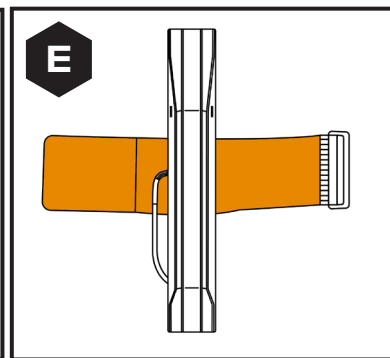
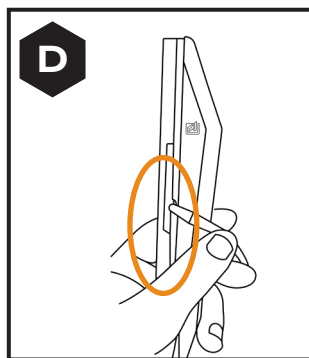
Install the roll bar adaptor to the base of the light using two M5 x 0.8 x 6mm Allen screws and a 3mm Allen wrench. [SEE FIGURES A – C]

NOTE: Choose the side where you'd like the wire to exit, based on which position helps you hide the wires best.



INSTALL STRAP

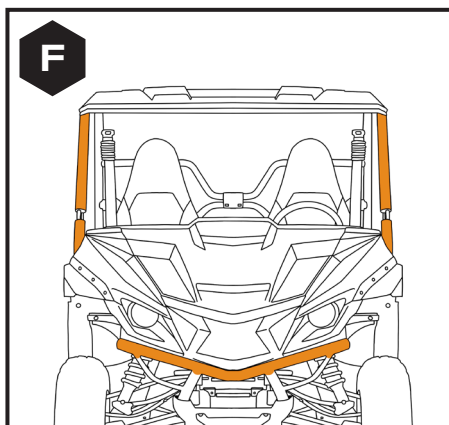
Once the roll bar adaptor is securely attached to the light, thread the provided strap through the opening between the light base and the roll bar adaptor. [SEE FIGURES D & E]



WIPE WITH RUBBING ALCOHOL

Before permanently installing your Apex Light to the UTV's roll bar, use the rubbing alcohol wipe provided to clean both the roll bar and the light base. Allow them to dry.

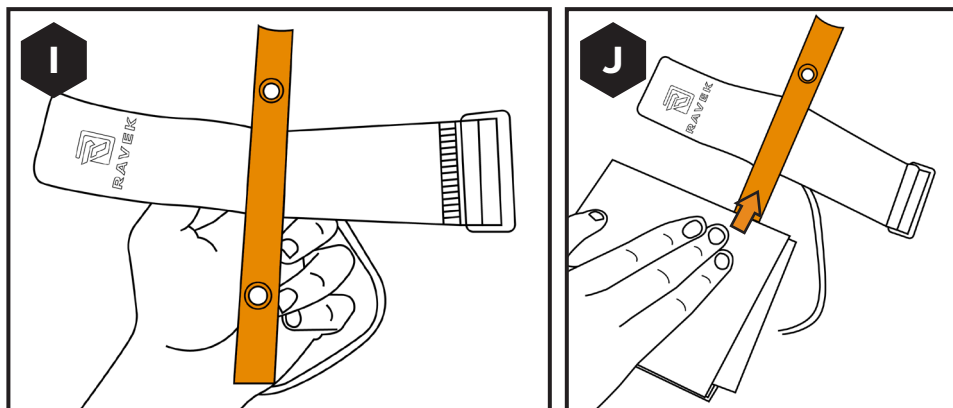
Next, use the adhesion promoter wipe provided to clean the roll bar and light base. Let them dry. [SEE FIGURES F – J]



RUBBING
ALCOHOL WIPE



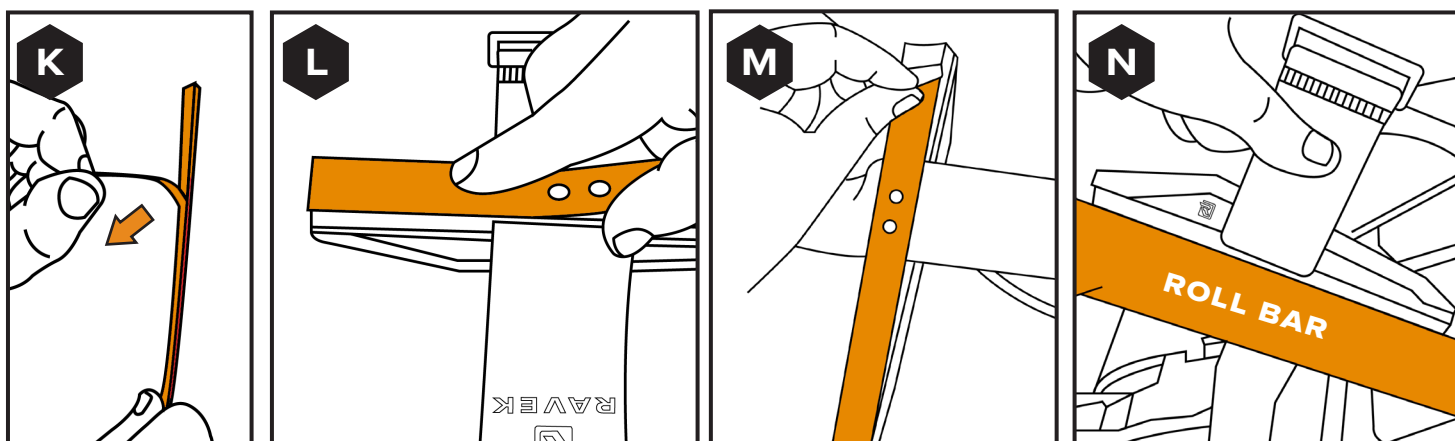
ADHESIVE
PROMOTER WIPE



iv

APPLY TAPE

Apply the double-sided tape to the dry roll bar adapter of the Apex Light, then attach the light to the cleaned and prepared surface. [SEE FIGURES K – N]

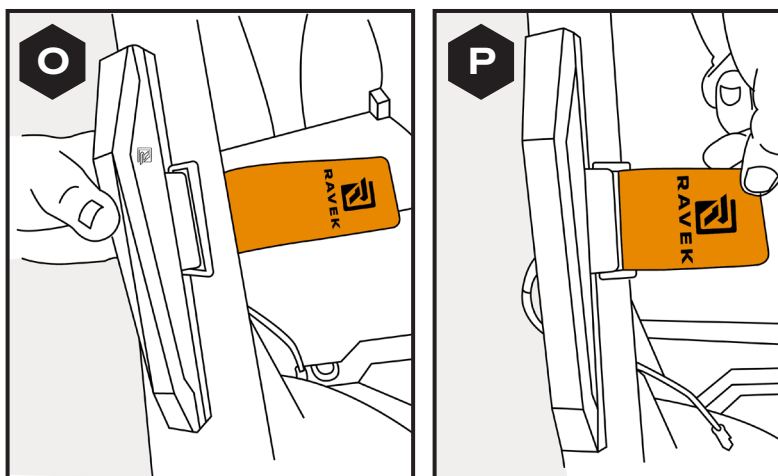


v

TIGHTEN STRAP

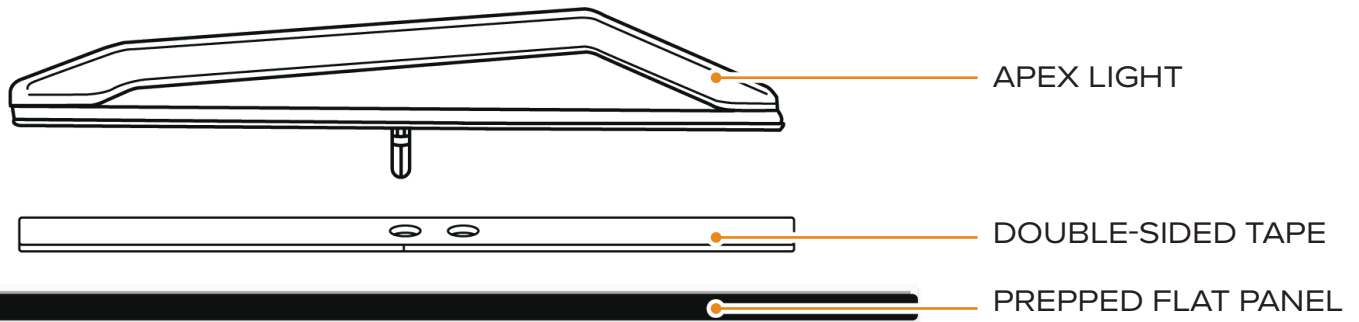
Tighten straps onto base and roll bar. [SEE FIGURES O & P]

NOTE: If you have excess length of strap you can rotate the buckle away from the slack to reduce the slack in the strap.



JUMP TO STEPS 10-15 TO FINISH INSTALL

OPTION B DIAGRAM - ADHESIVE ONLY MOUNTING

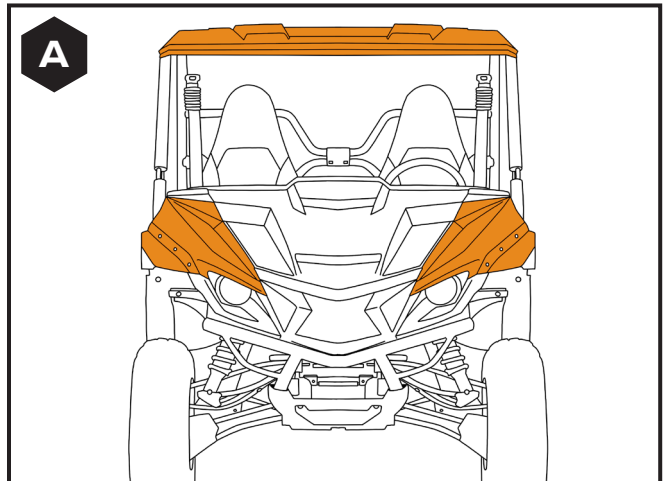


i

LOCATE A SURFACE TO MOUNT TO

Locate an exterior panel with 8" of flat surface for mounting.
[SEE FIGURE A]

NOTE: If you're adhesive mounting the Apex Lights to the roof, we recommend drilling a hole to feed the wires through. The Apex Light adhesive creates a water-tight seal.

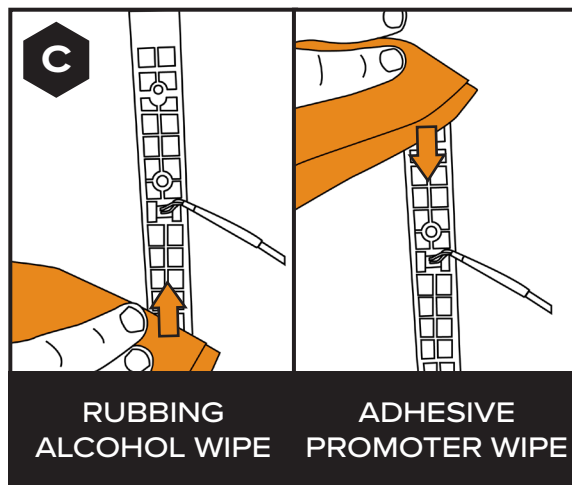


ii

WIPE DOWN SURFACES

Before you permanently install your Apex light to the UTV's flat panel you've chosen, wipe down the panel and the base of the light with the rubbing alcohol wipe provided and let dry.

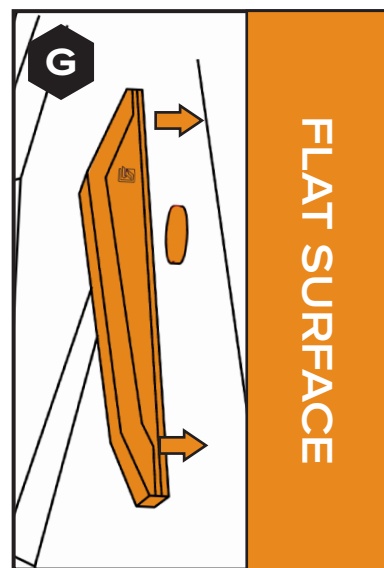
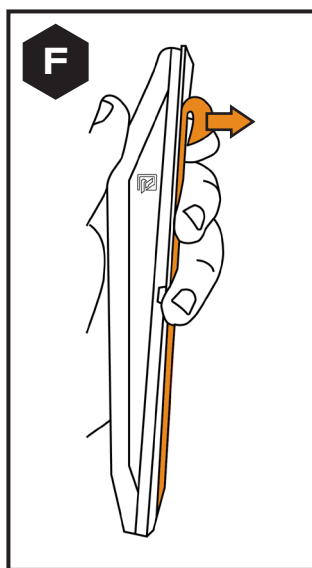
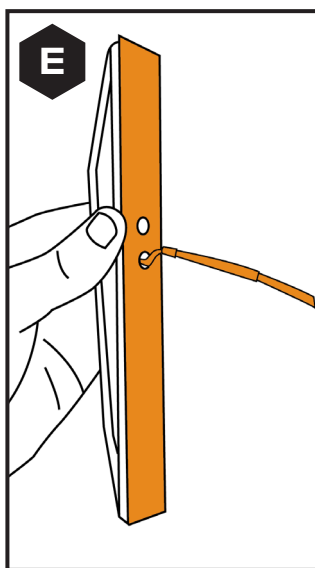
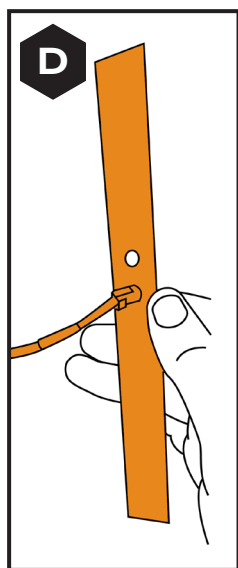
Next wipe down the panel and light base with the adhesion promoter wipe provided. Let dry. [SEE FIGURES B & C]



APPLY TAPE

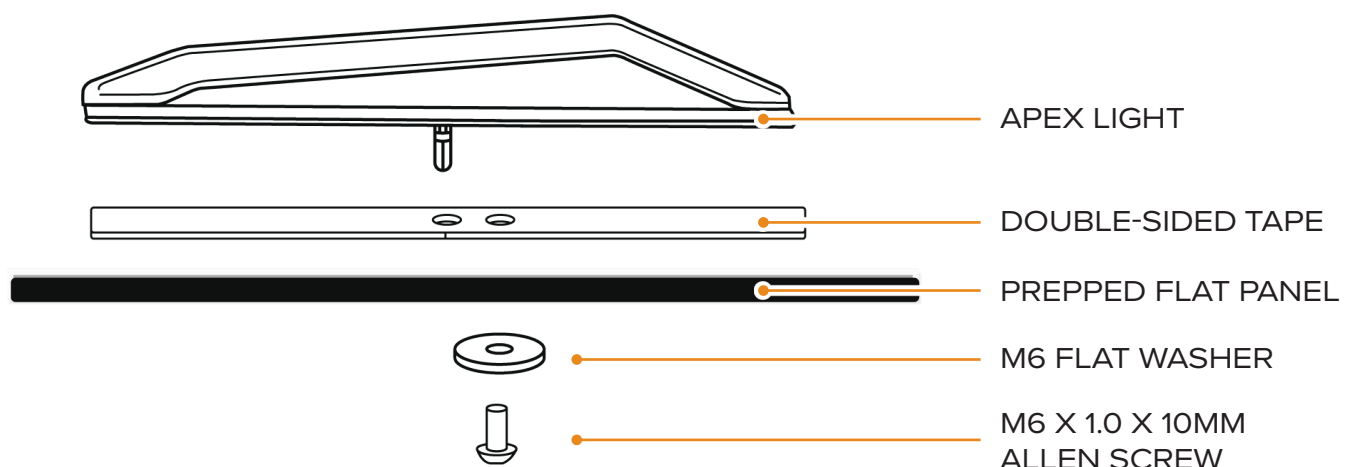
Apply the double-sided tape to the Apex light's base and affix the light to the prepped surface. [SEE FIGURES D – G]

NOTE: *Be sure the whole light's base is in contact with the surface of the UTV to ensure the light will hold up permanently.*



JUMP TO STEPS 10-15 TO FINISH INSTALL

OPTION C DIAGRAM - DRILLED AND ADHESIVE MOUNTING

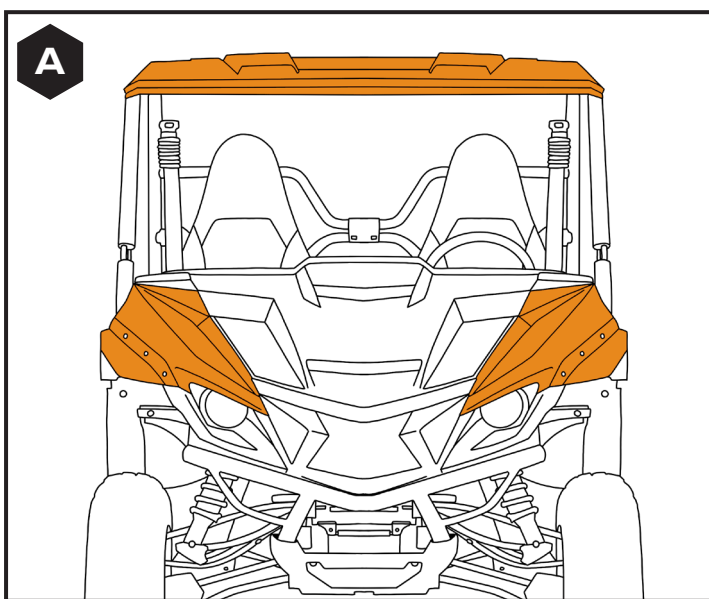


i

LOCATE A SURFACE TO MOUNT TO

Find an exterior panel with 8" of flat surface for mounting.
[SEE FIGURE A]

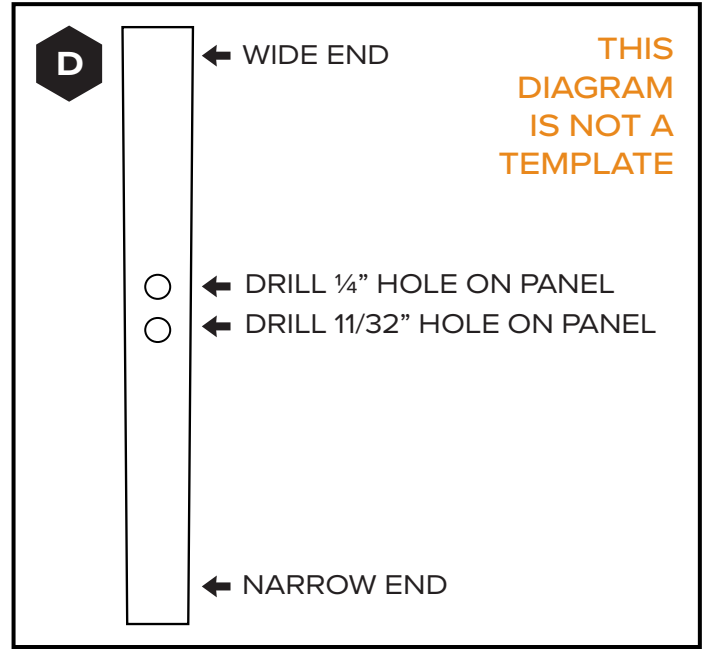
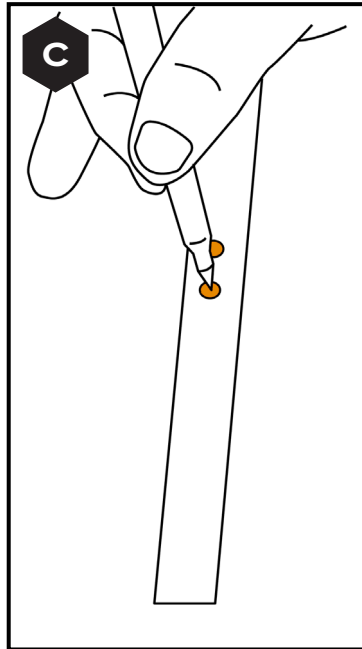
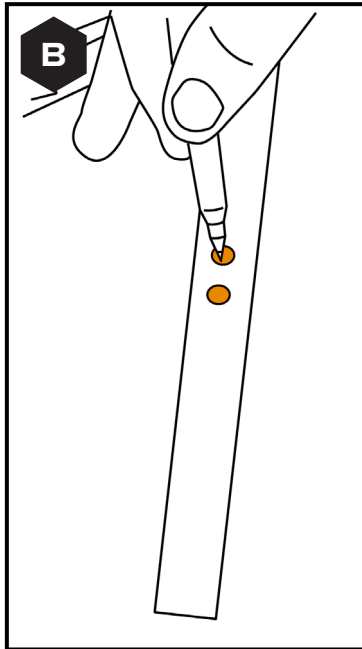
A





MARK HOLES TO DRILL

Use the holes in the double-sided tape as a guide for drilling. Make sure you can access the inside of the panel where you'll need to place the flat washer. [SEE FIGURES B - D]



DRILL 1/4" HOLE

Once your holes are marked, drill a 1/4" hole for the screw.

NOTE: We recommend using a *brad point drill bit* to prevent damaging the panel.



DRILL 11/32" HOLE

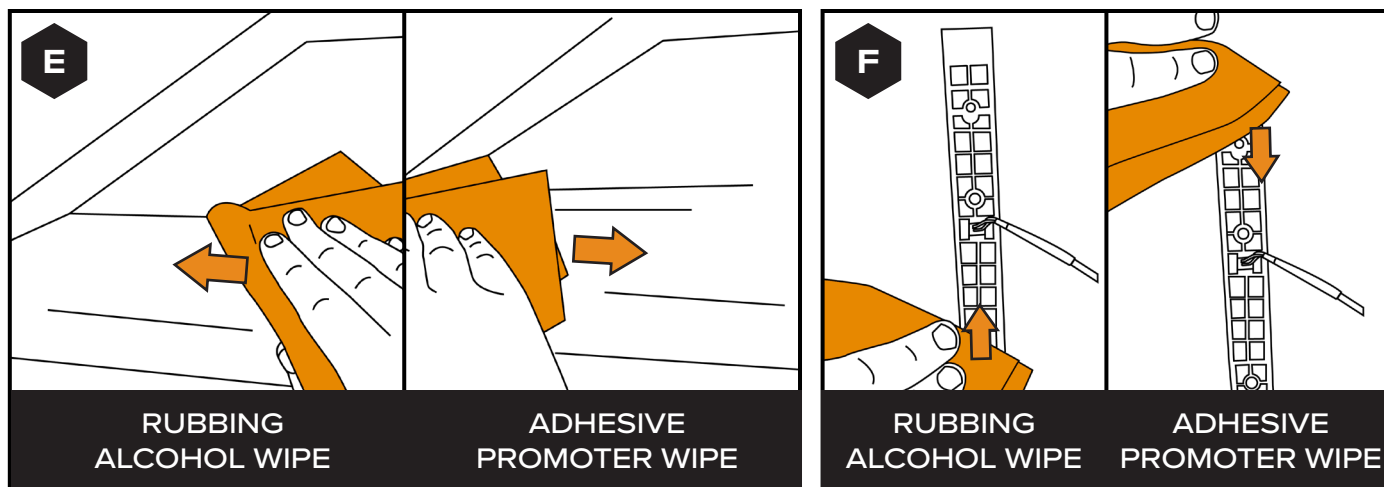
Drill an 11/32" hole to feed the Apex light's wire connector through.



WIPE SURFACE WITH RUBBING ALCOHOL

Before permanently installing your Apex light to the chosen flat panel, clean both the panel and the light base with the rubbing alcohol wipe provided. Let them dry.

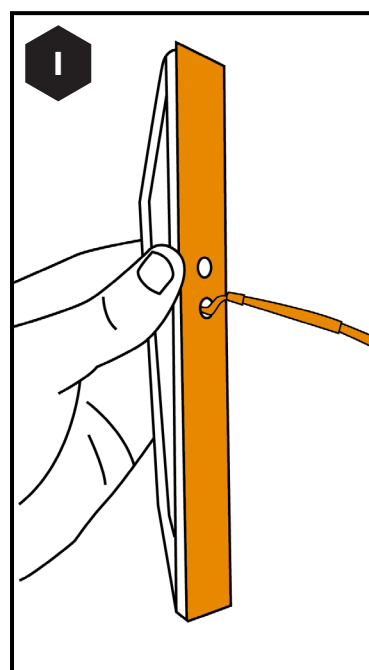
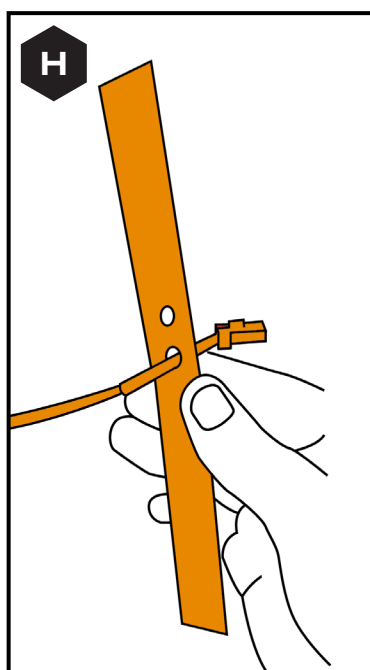
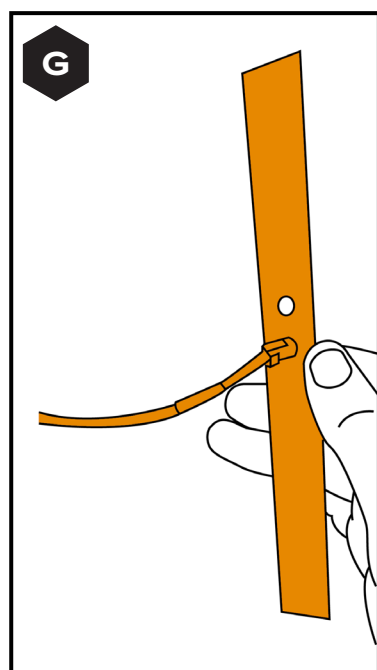
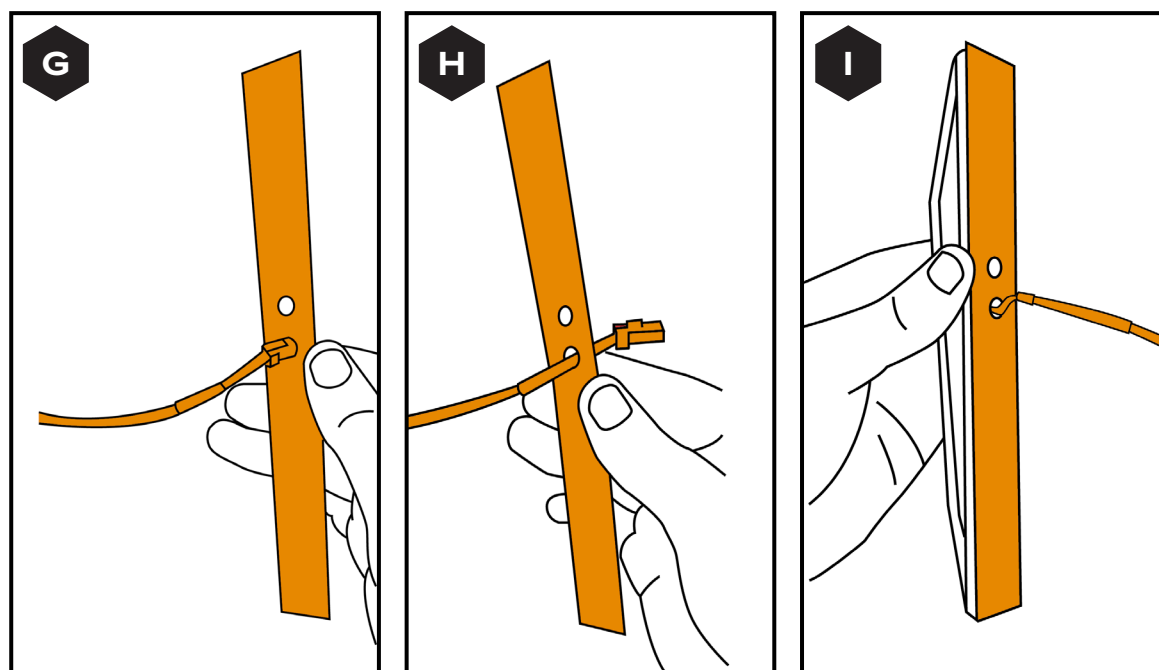
Next, wipe down the panel and light base with the adhesion promoter wipe provided. Let them dry. [SEE FIGURES E & F]



vi

APPLY TAPE

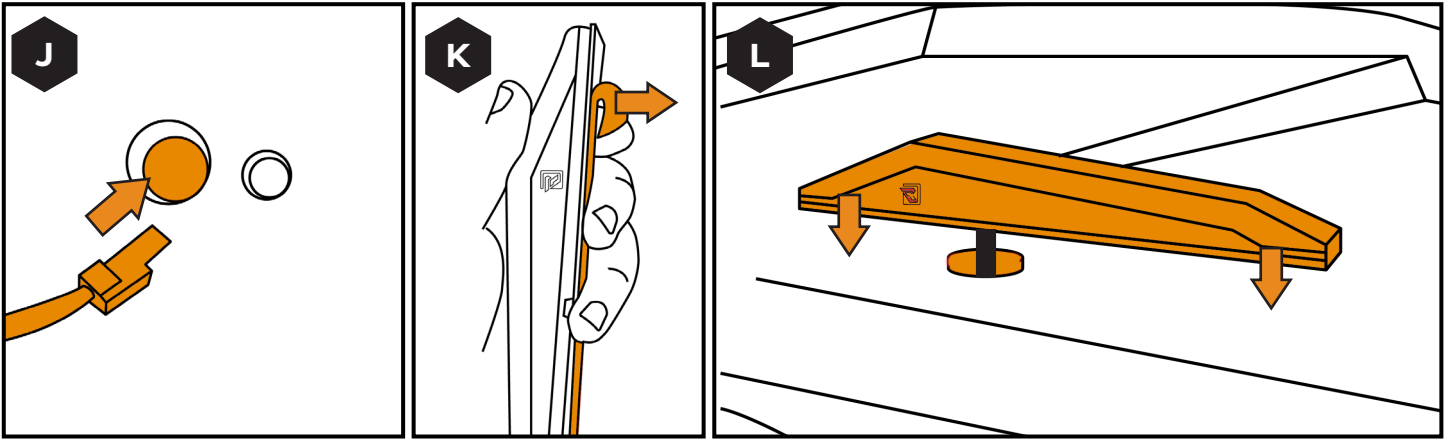
Apply the double-sided tape to the Apex light's base. [SEE FIGURES G - I]



vii

ADHERE LIGHT TO PREPPED SURFACE

Feed the light's wiring through the 11/32" hole. Remove the cover from the double-sided tape and attach the Apex light to the prepared surface. [SEE FIGURES J - L]



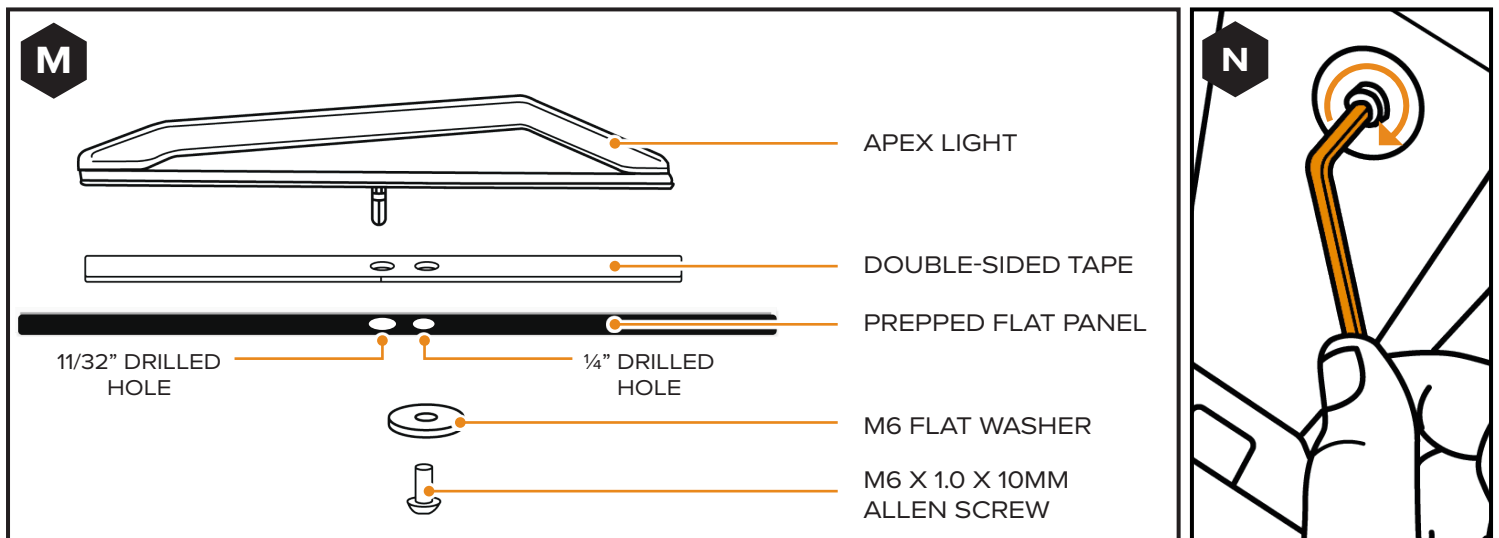
viii

THREAD IN SCREW

Thread the M6 x 1.0 x 10mm Socket Allen screw with an M6 Flat Washer through the backside of the panel into the light's base using a 4mm Allen wrench. [SEE FIGURES M, N, & OPTION C DIAGRAM]

NOTE: If you need a longer screw, you have two options:

1. Call or email us, and we'll express mail you the correct screw.
2. Visit your local hardware store and purchase an M6 x 1.0 x (desired length) screw.



JUMP TO STEPS 10-15 TO FINISH INSTALL

i

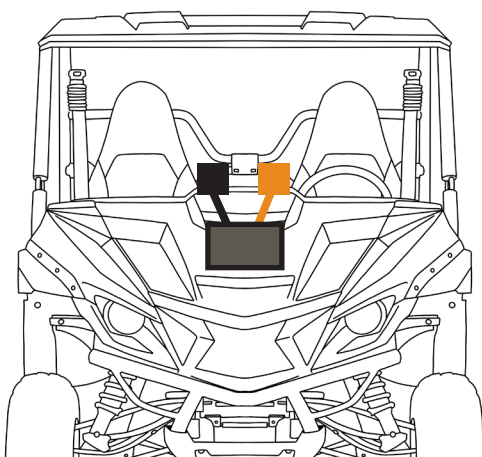
Grab your Turn Signal rocker switch and extension wire. Feed the extension wire through the open slot in your switch panel.

Route the small plug on the extension to the controller and plug it in. [SEE FIGURE 10A]

NOTE: The easiest way to route the extension wire is through the rocker switch slot and to the controller, as described above.

NOTE: Repeat this process for the Horn/Hazard Switch extension wire.

10A



HORN/HAZARDS
ROCKER SWITCH AND
EXTENSION HARNESS

TURN SIGNAL
ROCKER SWITCH AND
EXTENSION HARNESS

CONTROLLER

i

Return to the Turn Signal Controller and route the Horn Extension harness to the front of the X4. There, you will permanently mount the Horn using an OEM bolt of your choice.

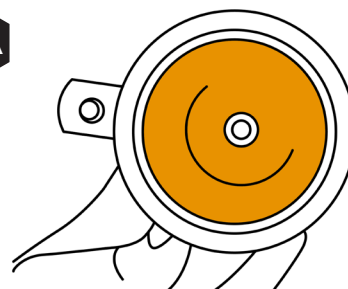
ii

Mount your horn from the kit once the wiring is routed to the front area. [SEE FIGURE 11A]

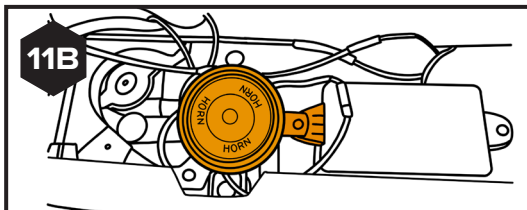
iii

Install the horn in an open area, away from the suspension or moving parts of the Wolverine, using a bolt location of your choice on the front of the Wolverine. [SEE FIGURE 11B]

11A

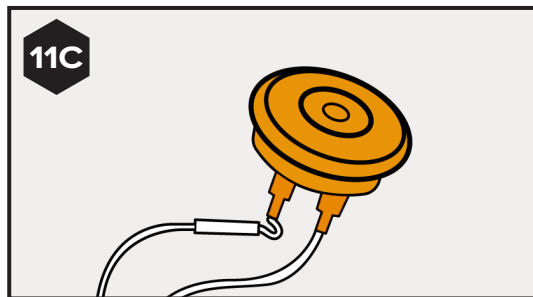


11B



iv

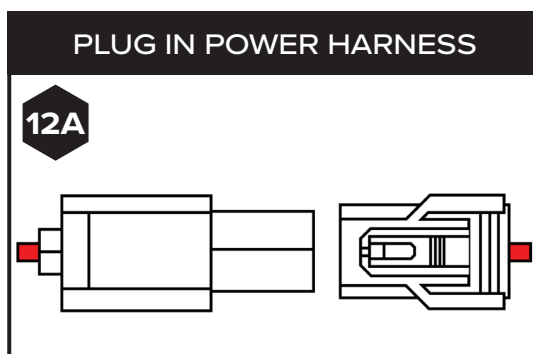
Connect both spade connectors from the extension harness to the connectors on the backside of the horn (there is no specific connector to plug into). [SEE FIGURE 11C]



12 PLUG IN YOUR TURN SIGNAL CONTROLLER TO POWER

i

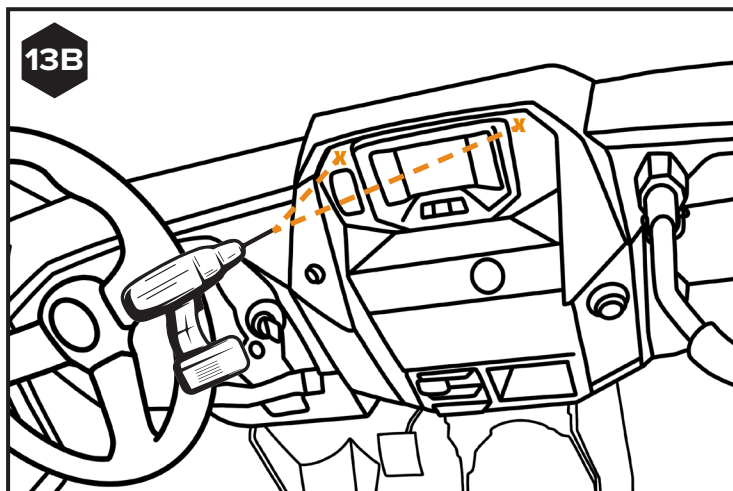
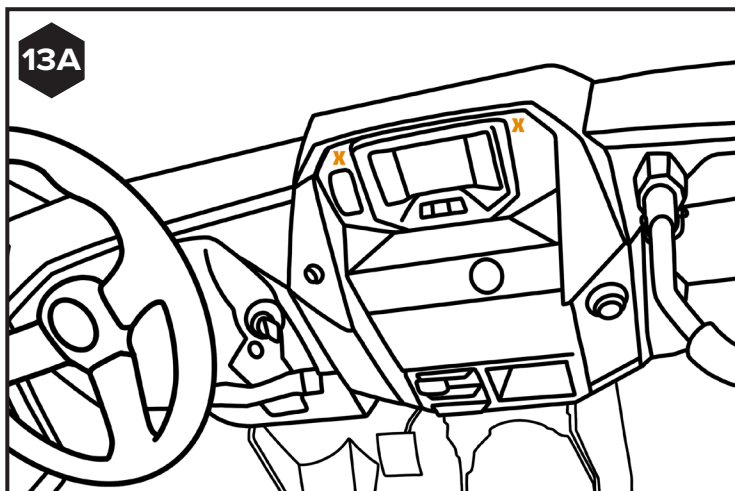
Go to the Turn Signal Controller and plug the connector from the Power Harness into the open 12V accessory plug. [SEE FIGURE 12A]



13 INSTALL DASH INDICATORS

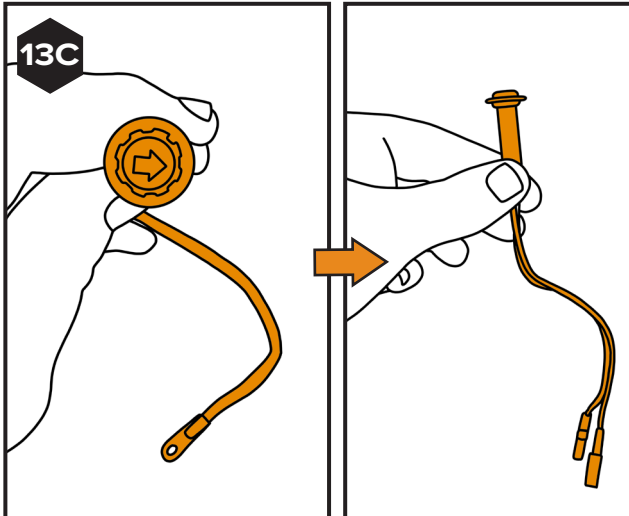
i

Mark two locations on your dash where the indicators will be installed. Ensure they are positioned side by side, not overlapping one another. Drill two 5/16" holes. [SEE FIGURES 13A & 13B]

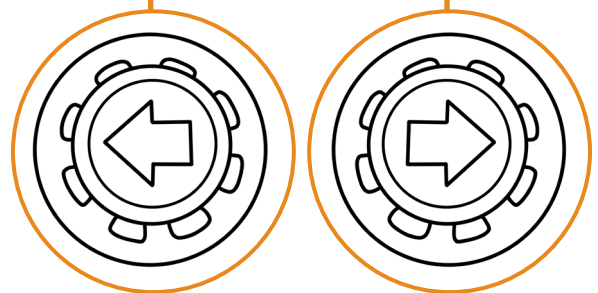
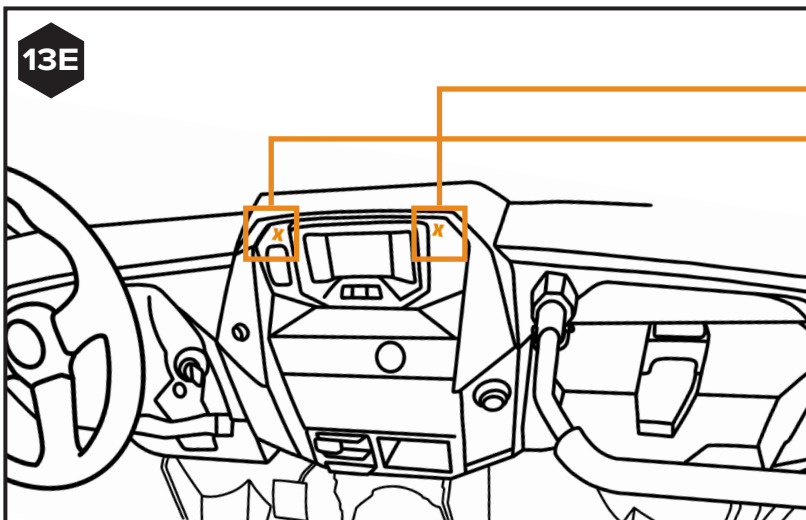
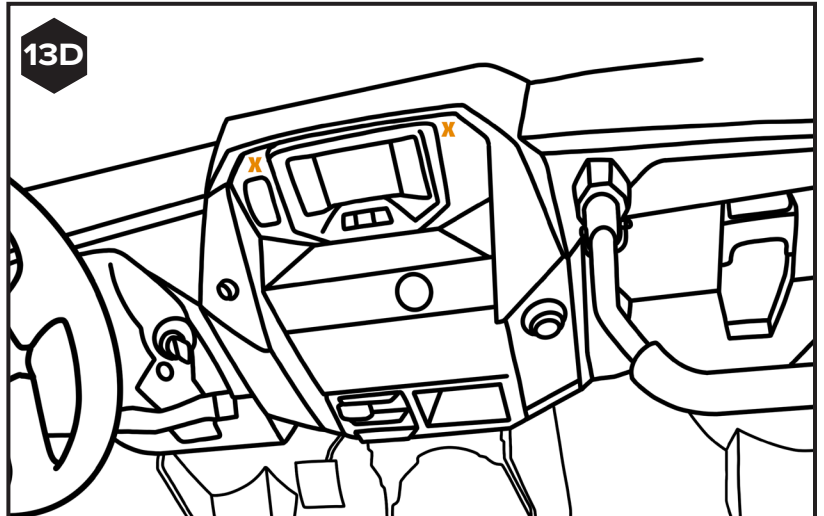


Insert the dash indicators into the pre-drilled holes. [SEE FIGURES 13C – 13F]

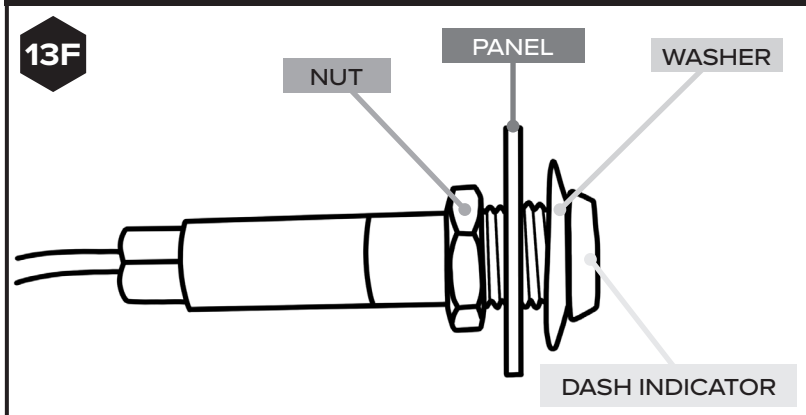
LOCATE YOUR DASH INDICATORS



FEED YOUR DASH INDICATORS THROUGH DRILLED HOLES



INSTALLED DASH INDICATOR SIDE PROFILE





Now, it's time to confirm the kit is working as expected. Before doing that, reconnect your battery by reversing step 1.vi.

Once the battery is connected, turn your Wolverine's power on and test all the kit's features:

- **Running brake lights**
- **Running white lights**
- **Brake light w/ pulse effect**
- **Left turn signal:**
 - **Push Once:** Activates a 20-second auto-cancel timer.
 - **Push Twice:** Extends the timer to 40 seconds.
 - **Push Three Times:** Sets the timer to 90 seconds.
- **Left turn signal dash indicator**
- **Right turn signal:**
 - **Push Once:** Activates a 20-second auto-cancel timer.
 - **Push Twice:** Extends the timer to 40 seconds.
 - **Push Three Times:** Sets the timer to 90 seconds.
- **Right turn signal dash indicator**
- **Hazards**
- **Horn (plug your ears)**

i

Once the kit's functions are verified and everything is working properly, check all your connection points and apply heat shrink to them if not already done, as described in step 3.

ii

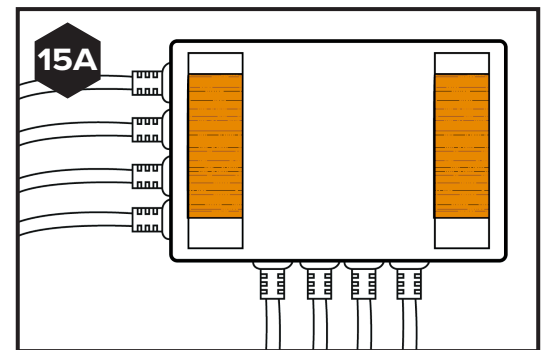
Use the zip ties provided in the kit to secure all wiring to frame tubes or roll bars, keeping it away from hot or moving parts.

iii

Once all wiring is secured with zip ties, use side cutter pliers to trim any excess zip tie ends.

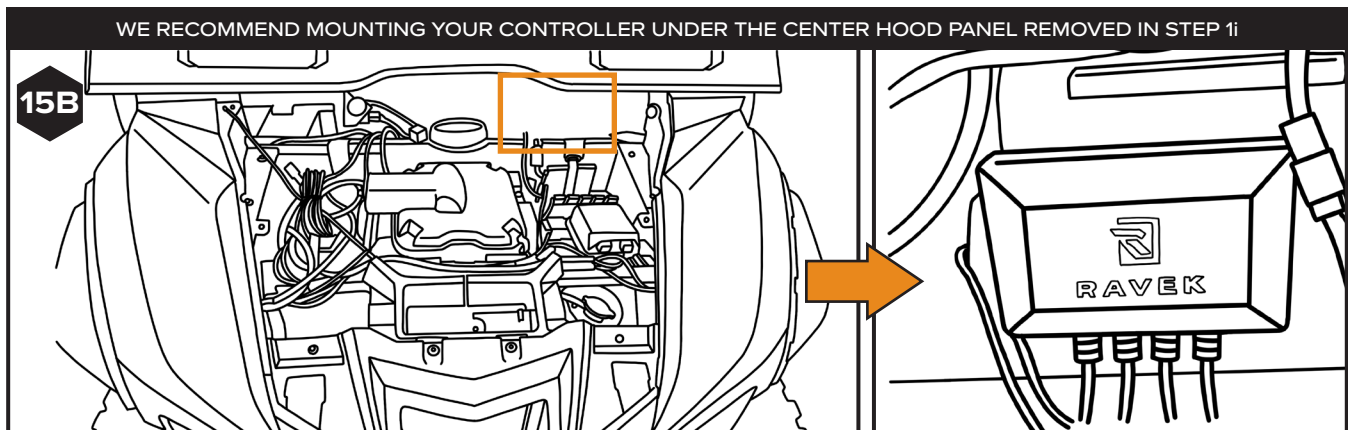
iv

Apply the two strips of double-sided tape from the kit to the backside cavities of the controller. [SEE FIGURE 15A]



v

Once the surface is clean and dry, press the controller into your chosen location and let the tape cure for 24 hours before use. [SEE FIGURE 15B]



vi

Reverse steps 1.i - 1.vii to reinstall all of your Wolverine body panels and parts that were previously removed.



RAVEK
BUILT FOR MORE

WHY RAVEK

Stock UTVs don't come with enough storage, lighting, comfort, and protection. That's why we started RAVEK.

We live to design, manufacture, and test innovative SxS upgrades that elevate the riding experience. Here's what you can expect from us:

- Durable products built to last (100% lifetime guarantee)
- UTV upgrades thoughtfully designed & tested by riders
- Outstanding installation support (videos & USA customer service)
- Constant flow of epic riding content (check out our social media)

We're confident your RAVEK product will earn its place on your machine. Please call or e-mail us if we can help.

- Harry & Ricky (Brothers & Owners)

MESSAGE FROM THE DESIGNER

All UTVs come without turn signals, and even though you can ride them on the road, people need to make hand signals to indicate to other riders that you are making a turn! Not only is it tiring, but not safe!

That is why I created this kit: you can easily install a turn signal kit to your UTV, add some personality to your ride, and make your ride safe at any time of the day.



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