

FITTING INSTRUCTIONS

BEHIND GRILLE LIGHTS

To suit Mitsubishi Triton, MV 2024+

2 x 7" Driving Lights

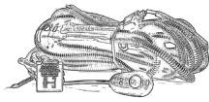


Approximate Fitting Time: 2 Hrs
NHBGM68DL

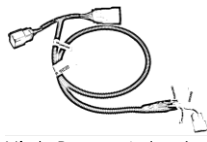
DRIVING LIGHT KIT INCLUDES



2 x Night Hawk 7"
LED Driving Lights
(NHX180VLI)



300W Wiring Harness
(NHW300DT)



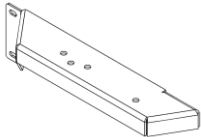
High Beam Adapter
Harness
(NHWA02H41)



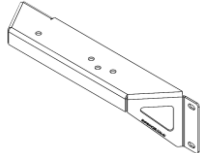
Cable Ties



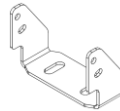
Installation Manual



1x Right Hand Side
Bracket



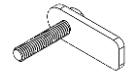
1x Left Hand
Side Bracket



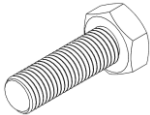
2x Driving Light
Mounting Bracket



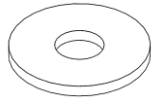
2x M6x30 Double
Rail Bolt



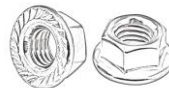
2x M6x30 Single
Rail Bolt



4x M8x25 Hex Head
Bolt



4x M8x24mm (OD)
Flat Washer
(2mm thick)



4x M8 Serrated
Flange Nut



6x M6 Serrated
Flange Nut

REQUIRED TOOLS



#2 Phillips Drive
Screwdriver



Trim Removal Tools



Side Cutters



Ring Spanner 13mm



Socket Drive
Wrench



Sockets 10mm &
13mm



Hex Key 4mm

GENERAL

- For the purpose of these fitting instructions, the left-hand side (LHS) and right-hand side (RHS) of the vehicle are from the view of sitting in the driver's seat looking forward.
- Please take the time to read the instructions thoroughly before proceeding with the fitment of this Night Hawk Behind Grille Light kit.
- Ensure all components, as listed above, are received prior to commencing the fitment. Please retain all hardware until fit-up is complete.
- All wiring should be completed by a qualified auto electrician. Bushranger bears no responsibility for any failure caused by the incorrect fitment of the driving light kit.
- Ensure these fitting instructions are passed onto the vehicle owner and/or operator.

WARNINGS

- Do not use this product for any other vehicle make or model, other than those specified for this application.
- Do not modify the driving lights, brackets and wiring contained within this kit.
- All installations of driving lights and light bars to the front of a vehicle result in an obstruction to the airflow passing through the radiator. Consider your driving needs/habits prior to installation.

BEFORE INSTALLATION

Please read these instructions carefully before installation, paying special attention to all 'Notes'. Failure to do so may result in damage of parts and/or injury.

CAUTION

Torque specifications unless otherwise stated:

- 10Nm for M6 fasteners
- 17Nm for M8 fasteners
- 44Nm for M10 fasteners
- 77Nm for M12 fasteners

Torque specifications specific to light fittings are available in the Night Hawk Manual provided with the lights.

OVERALL ASSEMBLY



NHBGM68DL Behind Grille Driving Light Kit

Configuration of the main components once installed in the vehicle

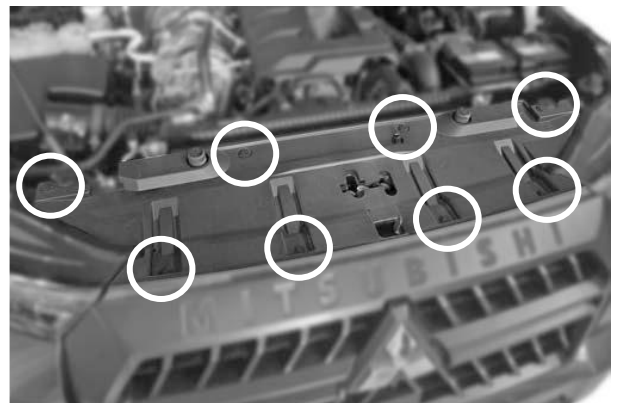
INSTALLATION PROCEDURE

Front Grille Removal

Raise the vehicle bonnet.



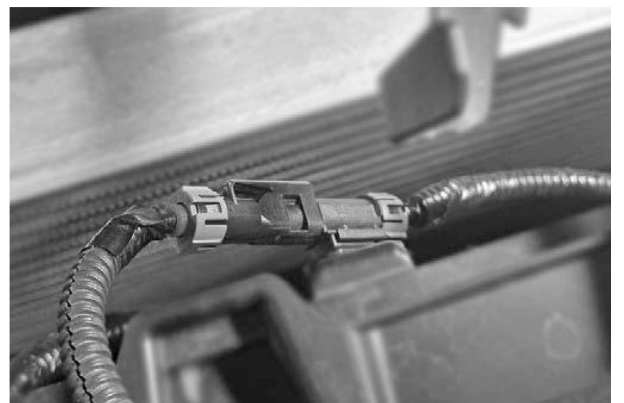
Using a trim removal tool, release the eight (8) radiator cover panel trim clips and remove the panel.



Using a trim removal tool, release the two (2) front grille trim clips, located at the top corner on each side of the grille.

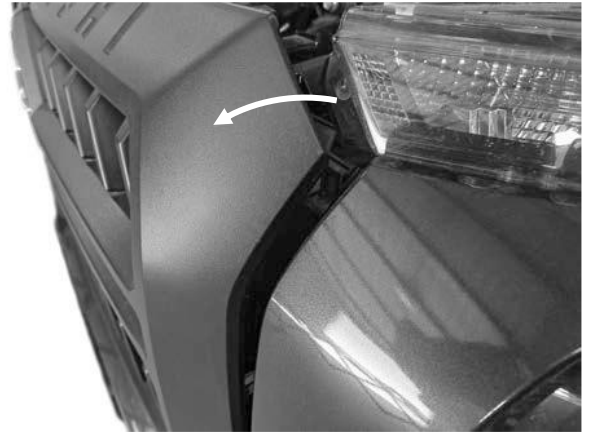


Disconnect the front camera wiring.



Remove front grille by releasing the retaining clips from the upper corner on each side. Continue working down to the lower edge until all clips have been released.

Set grille aside on a soft surface to avoid damage.



Driving Light Installation to Vehicle

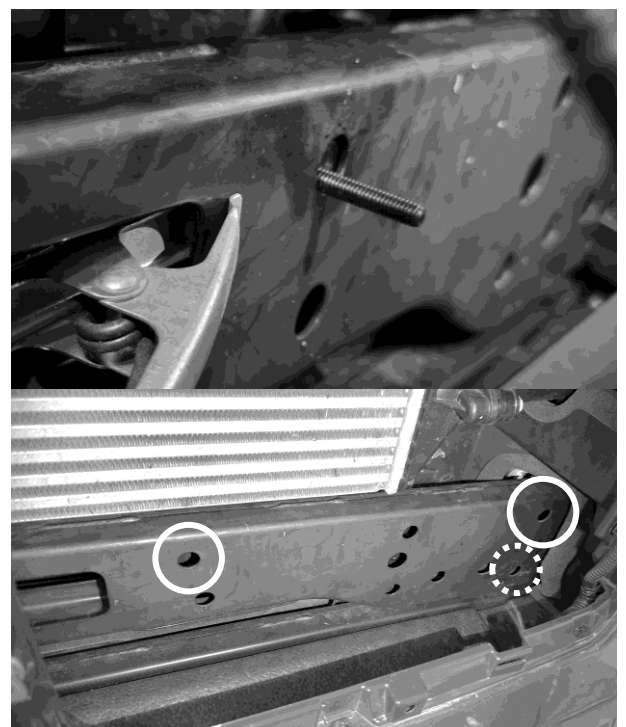
Pre-install one (1) M6x30 single rail bolt through the bottom slot of the outside flange on the LHS bracket. The rail bolt should be inserted from the rear with the threaded portion pointing toward the front of the bracket.

Secure the rail bolt by loosely installing one (1) M6 serrated flange nut.



Install one (1) M6x30 double rail bolt through the upper most holes of the vehicle's front bumper chassis rail, as shown. It may be desirable to hold the bracket in place with a clamp temporarily.

NOTE: The hole position indicated with the dashed circled here is where the single rail bolt pre-installed on the LHS bracket is to be inserted into the chassis rail in the following step.



Position the top holes in the LHS bracket over the threads of the double rail bolt previously installed.

While slowly positioning the LHS bracket back towards the chassis rail, insert the base of the single rail bolt into it's corresponding mounting hole, before installing the bracket solidly against the front face of the chassis rail.

Install one (1) M6 serrated flange nut to each of the double rail bolt threads.

Using a socket wrench and 10mm socket, secure the LHS bracket by torquing all three (3) M6 nuts to the appropriate torque specification.



The LHS side bracket installation is now complete.

This bracket is universal and can be used to mount a Night Hawk 7" driving light or a Night Hawk 13" light bar.

The mounting holes for the 7" driving light in this kit are shown here.



Driving Light Assembly

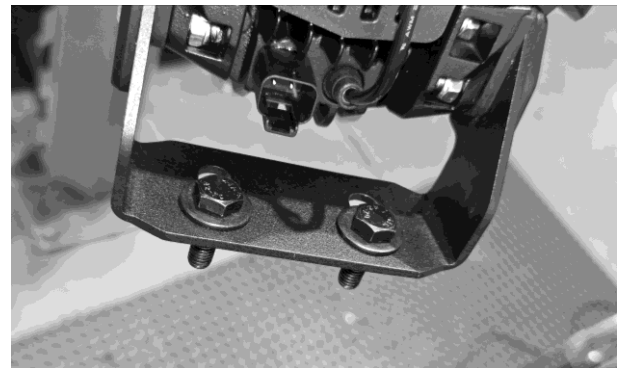
Remove the standard mounting bracket originally fitted to the driving lights, but retain the cover plates, rubber spacers and fasteners for reassembly to the brackets in the Behind Grille Driving Light kit.

Preassemble each driving light to the driving light mounting bracket from the behind grille light kit using the M6 button head socket screws, cover plate and rubber spacer from the original driving light assembly, as shown. The fasteners should be lightly tightened to aid in the assembly process, but will be fully tightened at a later stage following final adjustment.



Driving Light Assembly to Vehicle

Insert one (1) M8x25 hex head bolt and one (1) M8x24mm OD washer into each of the slots in the driving light mounting bracket, as shown.



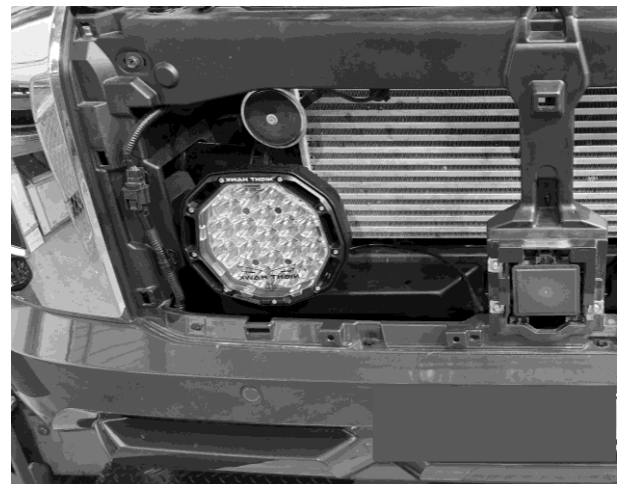
Position the driving light on the LHS mounting bracket and align the holes in the mounting feet with the holes in the bracket.



Install one (1) M8 serrated flange nut onto each M8x25 hex head mounting bolt and finger tighten.



Repeat the above process to install the RHS mounting bracket and 7" driving light.



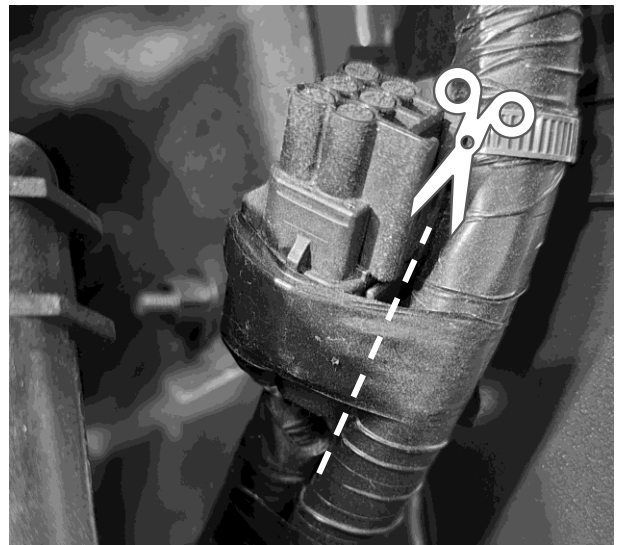
Wiring Harness Installation

For further details of the wiring harness installation, refer to the wiring diagram supplied in the NHW300DT wiring loom owner's manual.

Locate the driving light wiring harness connector, positioned on the LHS firewall in the engine bay, behind the main fuse box.

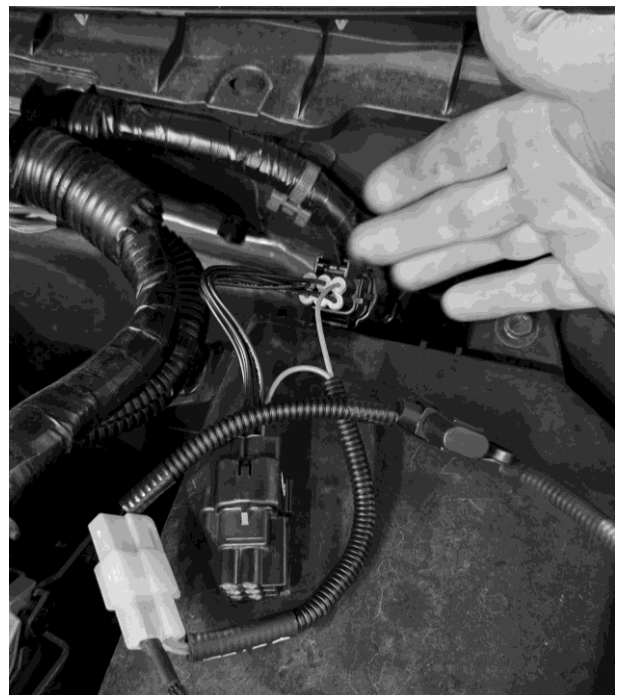


Using side cutters, cut the tape securing the connector to the main wiring harness.



Connect the high beam adapter harness as per the wiring diagram supplied in the NHWA02H41 adapter harness owner's manual.

Secure all cables and connectors using the cable ties supplied.



Final Assembly and Adjustment

There are two points of adjustment on the driving light assemblies –

- a. Adjusting the projection angle up or down.
- b. Adjusting the projection angle inwards or outwards.

To adjust the projection angle up or down, simply rotate the driving light on its mounting bracket to the desired angle and then fully tighten the two (2) M6 button head socket screws on each side of the driving light.



To adjust the projection angle inwards or outwards, the M8x25 hex head bolts are mounted in slots in the behind grille driving light bracket that allows for significant adjustment.

Once the desired projection angle is achieved, fully tighten the M8 serrated flange nuts using a socket wrench and 13mm socket while holding the hex head bolts with a 13mm ring spanner.



Once final adjustment is complete, fully tighten all fasteners to the appropriate torques specified at the start of this document.



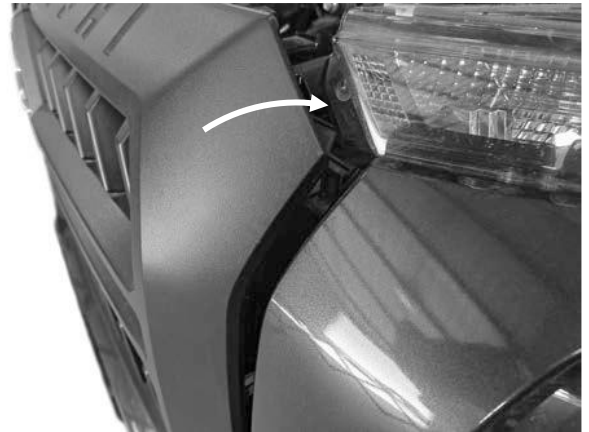
Secure the driving light cables and wiring loom using the cable ties supplied in the kit. Ensure that all cables and looms are secured in such a way as to prevent damage and to not impede the normal vehicle functions.

Final Checks

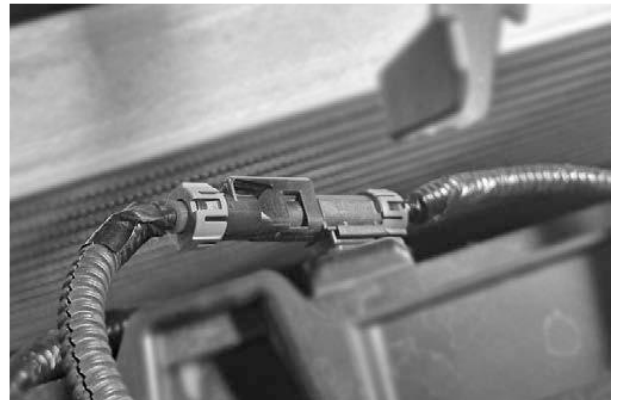
- Ensure that all fasteners are tensioned as specified in these instructions.
- Ensure that all wiring is clear of any sharp edges and other moving components to eliminate the possibility of abrasion damage during vehicle operation.
- Check the vehicle's original lighting and signalling systems are still functioning correctly after the installation of the driving light kit.

Front Grille Reassembly

Reinstall the front grille by aligning the grille to the grille aperture of the vehicle and then engage all the retaining clips, starting from the lower edge and working around to the upper corners.



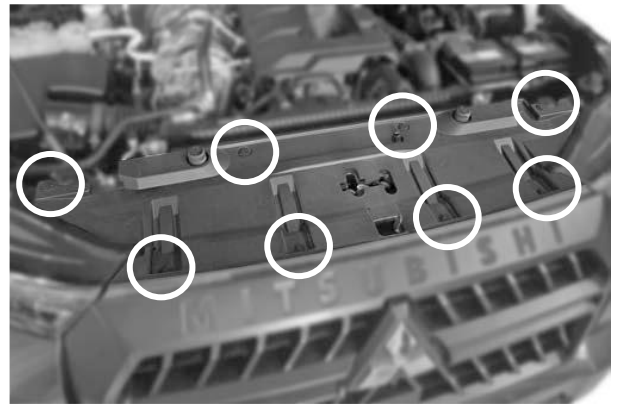
Reconnect the front camera.



Reinstall the two (2) front grille trim clips, located at the top corner on each side of the grille.



Reinstall the eight (8) radiator cover panel trim clips to secure the panel.



The installation of the Night Hawk Behind Grille Driving Light kit is now complete.



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