



Bronco Equipment Installation Guide

1

BRONCO

BRONCO INDEX

2021

MODEL YEAR

BRONCO	Page
INDEX	1
INTRODUCTION	2
MODEL LINEUP	
2 DOOR	3
4 DOOR	4
DIMENSIONAL DATA	
2 DOOR/4 DOOR	5
2 DOOR/4 DOOR (Con't)	6
ADAS SENSOR FIELDS OF VIEW (KEEP OUT ZONES)	7
360 DEGREE CAMERA FIELDS OF VIEW	8
BRONCO INTERIOR	9
BRONCO BODY MOUNTING POINTS	10-13
AXLE / TIRE / VEHICLE HEIGHT DATA	14
AXLE AND TRANSMISSION RATIOS	15
BRONCO WHEEL & TIRE DATA	16
BRONCO COOLING CONSIDERATIONS	17
BRONCO ELECTRICAL WIRING	
ACCESSORY SWITCHES AND WIRING	18
ACCESSORY SWITCHES AND WIRING (Con't)	19
ADDED CIRCUITS	20
ADDED CIRCUITS (Con't)	21
WIRING PASS THROUGH LOCATIONS	22
CHMSL CIRCUIT	23
HEAD AND TAIL LAMPS	24
CHANGE CONTROL	25

WARNING:

During the production and servicing of these vehicles, due care should be taken to avoid damaging of safety or emissions related systems such as the braking system, fuel lines, sensors, catalysts, etc. through contacting them while working on adjacent areas of the vehicle. Inadvertent damage can also occur due to adjacent welding/cutting operations, people standing near/on unprotected systems while performing other tasks.



Introduction

Important Notices

The information described herein is believed to be correct at the time of publication, but accuracy cannot be guaranteed. Ford reserves the right to discontinue models or change specifications or designs at any time without notice and without incurring any obligation.

Installation of additional equipment, or alterations to Bronco vehicles as sold by Ford Motor Company may void the vehicle warranty or require certification to US Federal (or Canadian) Motor Vehicle Safety Standards, Emissions standards, state, provincial, and/or local laws and regulations. It is the responsibility of the vehicle alterer to determine what standards, laws or regulations may be affected and take appropriate action.

The suspension and steering systems on the Bronco have been designed and tested to provide predictable performance; Ford does not recommend any modifications such as adding or removing parts (i.e. lift kits or stabilizer bars) or using replacement parts not equivalent to the original factory equipment. Any modifications to your vehicle that raise the center of gravity (i.e. lift kits, roof mounted accessories beyond the stated load capacity) may cause the vehicle to roll over when there is a loss of vehicle control.

The following important items should be carefully considered before modifying a Bronco vehicle:

- Installation of a snow plow of any kind is not endorsed by Ford Motor Company and may void the vehicle warranty.
- Sensors should not be removed, relocated or reoriented unless expressly authorized by Ford Motor Company. Installation of additional equipment should also not interfere with the field of view (FOV) of the camera and radar modules (see additional information in this document for sensor FOV zones). Examples of sensors:
 - o Front and rear view cameras
 - o Forward facing radar
 - o Rear corner radar
 - o Crash sensors
 - o Yaw sensor
 - o ABS wheel speed sensors
- Any added accessories or equipment mounted near exterior lamps and/or reflectors should be checked to ensure the vehicle remains in compliance with FMVSS 108 Lamps, Reflective Devices and Associated Equipment standard.

Bronco CAD Requests

Component level CAD for the Bronco can be obtained from SEMA Tech Transfer. SEMA Tech Transfer link: <https://www.semagarage.com/techtransfer/Index>

Note: Access to Tech Transfer may require a SEMA membership and associated fees may apply.

Reference Information

Ford Service Publications

Ford Service Technical Resources (including wiring diagrams, repair manuals and diagnostic tool support) are available by subscription via the Motorcraft website: www.motorcraftservice.com

The following publications are examples of digital and printed manuals which are available from Helm Incorporated; call 1-800-782-4356 or contact Helm, Inc. at their website www.helminc.com:

- Ford Truck Shop Manuals
- Ford Towing Manuals
- Ford Wiring Diagrams



Bronco Equipment Installation Guide

3

BRONCO

BRONCO

MODEL LINEUP - 2 DOOR

2021

MODEL YEAR

Body Style	Engine	Trans	4x4	Series	GVWR (lbs) (1)	Max Payload (lbs) (2)	Max ARC (lbs) (3)	Max Std GAWR (lbs) (1,4)		Base Curb Weight (lbs) (5)		
							Total	Front	Rear	Front	Rear	Total
2 Door 100.4" WB	2.3L GTDi	Manual MT88	ESOF	Base	5540	1170	634	2900	3000	2338	1981	4319
				Big Bend	5540	1160	623	2900	3000	2344	1985	4329
				Black Diamond	5640	1020	433	2900	3000	2437	2134	4571
			EMTC	Black Diamond	5640	1000	411	2900	3000	2452	2141	4593
				Badlands	5720	970	328	2900	3000	2535	2164	4699
		Auto 10R60	ESOF	Base	5540	1150	614	2900	3000	2352	1987	4339
				Big Bend	5540	1140	603	2900	3000	2358	1991	4349
				Outer Banks	5540	1060	514	2900	3000	2400	2035	4435
				Black Diamond	5640	1000	413	2900	3000	2451	2140	4591
			EMTC	Base	5620	980	445	2900	3000	2471	2123	4594
				Big Bend	5620	970	439	2900	3000	2474	2124	4598
				Outer Banks	5620	1090	558	2900	3000	2415	2069	4484
				Black Diamond	5660	1000	406	2900	3000	2466	2147	4613
				Badlands	5720	950	308	2900	3000	2549	2170	4719
	2.7L GTDi	Auto 10R60	ESOF	Base	5700	1160	622	3000	3000	2493	1998	4491
				Big Bend	5700	1150	611	3000	3000	2499	2002	4501
				Outer Banks	5700	1060	522	3000	3000	2542	2046	4588
				Wildtrak	5740	1060	553	3000	3000	2545	2089	4634
				Black Diamond	5780	980	401	3000	3000	2592	2151	4743
			EMTC	Base	5760	960	433	3000	3000	2613	2134	4747
				Big Bend	5760	960	427	3000	3000	2616	2135	4751
				Outer Banks	5760	1070	546	3000	3000	2556	2080	4636
				Wildtrak	5820	940	451	3000	3000	2641	2182	4823
				Black Diamond	5800	980	399	3000	3000	2607	2158	4765
				Badlands	5860	940	363	3000	3000	2690	2181	4871
				Launch Edition	5860	740	243	3000	3000	2799	2269	5068

Notes:

- (1) Maximum loaded vehicle (including passengers,equipment and payload) cannot exceed the GVWR or GAWRs (front or rear).
- (2) Load rating represents maximum allowable weight of people,cargo and body equipment and is reduced by optional equipment weight.
- (3) Accessory Reserve Capacity (ARC) is the maximum allowable weight of regular production options and aftermarket equipment for each configuration.
- (4) Gross Axle Weight Rating is determined by the rated capacity of the minimum component of the axle system (axle, springs,wheels, tires).
- (5) Base Curb Weights shown are for vehicles with standard equipment.





Bronco Equipment Installation Guide

4

BRONCO

BRONCO

MODEL LINEUP - 4 DOOR

2021

MODEL YEAR

Body Style	Engine	Trans	4x4	Series	GVWR (lbs) (1)	Max Payload (lbs) (2)	Max ARC (lbs) (3) Total	Max Std GAWR (lbs) (1,4)		Base Curb Weight (lbs) (5)		
								Front	Rear	Front	Rear	Total
4 Door 116.1" WB	2.3L GTDi	Manual MT88	ESOF	Big Bend	5920	1370	683	3090	3070	2495	2004	4499
				Black Diamond	6020	1160	425	3170	3070	2638	2169	4807
			EMTC	Black Diamond	6020	1140	403	3170	3070	2690	2140	4830
				Badlands	6100	1110	385	3170	3070	2735	2202	4937
		Auto 10R60	ESOF	Base	5920	1360	674	3090	3070	2509	2000	4509
				Big Bend	5920	1350	663	3090	3070	2515	2004	4519
				Outer Banks	5920	1260	570	3090	3070	2560	2050	4610
				Black Diamond	6040	1160	425	3170	3070	2658	2169	4827
			EMTC	Base	5980	1160	485	3090	3070	2628	2136	4764
				Big Bend	5980	1160	479	3090	3070	2632	2137	4769
				Outer Banks	5980	1270	594	3090	3070	2575	2083	4658
				Black Diamond	6040	1140	403	3170	3070	2673	2177	4850
				Badlands	6120	1110	370	3170	3070	2755	2202	4957
	2.7L GTDi	Auto 10R60	ESOF	Base	6060	1350	662	3220	3070	2638	2023	4661
				Big Bend	6060	1340	651	3220	3070	2644	2027	4671
				Outer Banks	6060	1250	558	3220	3070	2689	2073	4762
				Wildtrak	6080	1220	558	3220	3070	2694	2116	4810
				Black Diamond	6120	1090	353	3270	3070	2787	2192	4979
			EMTC	Base	6100	1130	453	3220	3070	2758	2159	4917
				Big Bend	6100	1120	447	3220	3070	2761	2160	4921
				Outer Banks	6100	1240	562	3220	3070	2704	2106	4810
				Wildtrak	6160	1110	456	3220	3070	2789	2211	5000
				Black Diamond	6180	1120	391	3270	3070	2802	2200	5002
				Badlands	6180	1010	293	3270	3070	2884	2225	5109
				Launch Edition	6180	810	155	3270	3070	2999	2318	5317

Notes:

- (1) Maximum loaded vehicle (including passengers,equipment and payload) cannot exceed the GVWR or GAWRs (front or rear).
- (2) Load rating represents maximum allowable weight of people,cargo and body equipment and is reduced by optional equipment weight.
- (3) Accessory Reserve Capacity (ARC) is the maximum allowable weight of regular production options and aftermarket equipment for each configuration.
- (4) Gross Axle Weight Rating is determined by the rated capacity of the minimum component of the axle system (axle, springs,wheels, tires).
- (5) Base Curb Weights shown are for vehicles with standard equipment.





Bronco Equipment Installation Guide

5

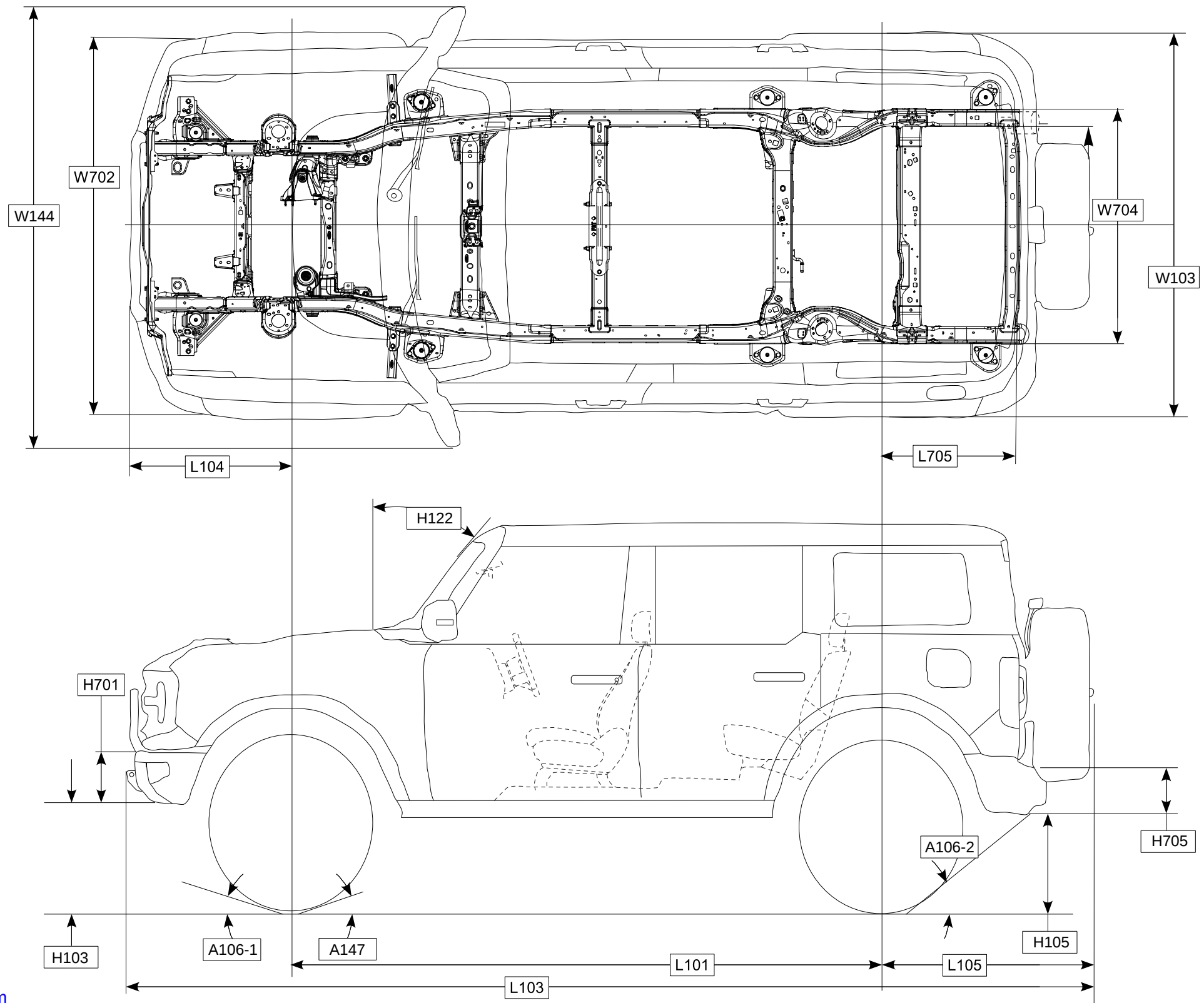
BRONCO

BRONCO

DIMENSIONAL DATA - 2 DOOR / 4 DOOR

2021

MODEL YEAR





Bronco Equipment Installation Guide

6

BRONCO

BRONCO

DIMENSIONAL DATA - 2 DOOR / 4 DOOR CONT'D

2021

MODEL YEAR

CODE	DESCRIPTION	2 DOOR			4 DOOR		
		Base	Badlands	Sasquatch	Base	Badlands	Sasquatch
		30" Tire	33" Tire	35" Tire	30" Tire	33" Tire	35" Tire
H103	BOTTOM OF FRONT BUMPER TO GROUND @ CURB	377 [14.8]	463 [18.2]	491 [19.3]	377 [14.8]	463 [18.2]	491 [19.3]
H105	BOTTOM OF REAR BUMPER TO GROUND @ CURB	435 [17.1]	482 [19.0]	519 [20.4]	434 [17.1]	481 [18.9]	518 [20.4]
A106-1	APPROACH ANGLE @ CURB (DEGREES)	35.5	40.4	43.2	35.5	40.3	43.2
A106-2	DEPARTURE ANGLE @ CURB (DEGREES) (TO REAR TOW HOOKS)	29.8	34.1	37.2	29.7	34.0	37.0
	(TO REAR BUMPER - TOW HOOKS REMOVED)	34.3	38.6	41.6	34.2	38.5	41.4
A147	RAMP BREAKOVER ANGLE @ CURB (DEGREES)	21.1	25.9	29.0	20	23.6	26.3
L101	WHEELBASE	2550 [100.4]			2950 [116.1]		
L103	VEHICLE LENGTH	4411 [173.7]	4439 [174.8]	4413 [173.7]	4811 [189.4]	4839 [190.5]	4813 [189.5]
L104	FRONT OVERHANG (NO LICENSE PLATE BRACKET)	794 [31.3]	822 [32.4]	783 [30.8]	794 [31.3]	822 [32.4]	783 [30.8]
L105	REAR OVERHANG (TO SPARE TIRE CARRIER)	1067 [42.0]	1067 [42.0]	1080 [42.5]	1067 [42.0]	1067 [42.0]	1080 [42.5]
	(TO REAR BUMPER)	833 [32.8]	818 [32.2]	818 [32.2]	833 [32.8]	818 [32.2]	818 [32.2]
L705	C/L OF REAR AXLE TO REAR END OF FRAME	717 [28.2]			717 [28.2]		
H122	WINDSHIELD ANGLE (DEGREES)	39.6			39.6		
H701	FRONT BUMPER HEIGHT	301 [11.9]	264 [10.4]	271 [10.7]	301 [11.9]	264 [10.4]	271 [10.7]
H705	REAR BUMPER HEIGHT	256 [10.1]	258 [10.2]	258 [10.2]	256 [10.1]	258 [10.2]	258 [10.2]
W103	VEHICLE WIDTH (MAX W/O MIRRORS)	1928 [75.9]	1937 [76.3]	2015 [29.3]	1928 [75.9]	1937 [76.3]	2015 [29.3]
W144	VEHICLE WIDTH (MAX W/ STANDARD MIRRORS)	2189 [86.2]			2189 [86.2]		
W702	FRONT BUMPER WIDTH	1873 [73.7]	1874 [73.8]	1872 [73.7]	1873 [73.7]	1874 [73.8]	1872 [73.7]
W704	REAR FRAME WIDTH	1170 [46.1]			1170 [46.1]		

Note: Does not include rear tow hooks, optional trailer hitch receiver or spare tire

Note: Base (Plastic), Badlands (Modular), Sasquatch (Steel)

Note: Badlands & Sasquatch measured to Design Nominal tire sidewall

Note: High Series Mirrors with Turn Lamp (W144 = 2199mm [86.6])

DIMENSIONS SHOWN IN mm [in]





Bronco Equipment Installation Guide

7

BRONCO

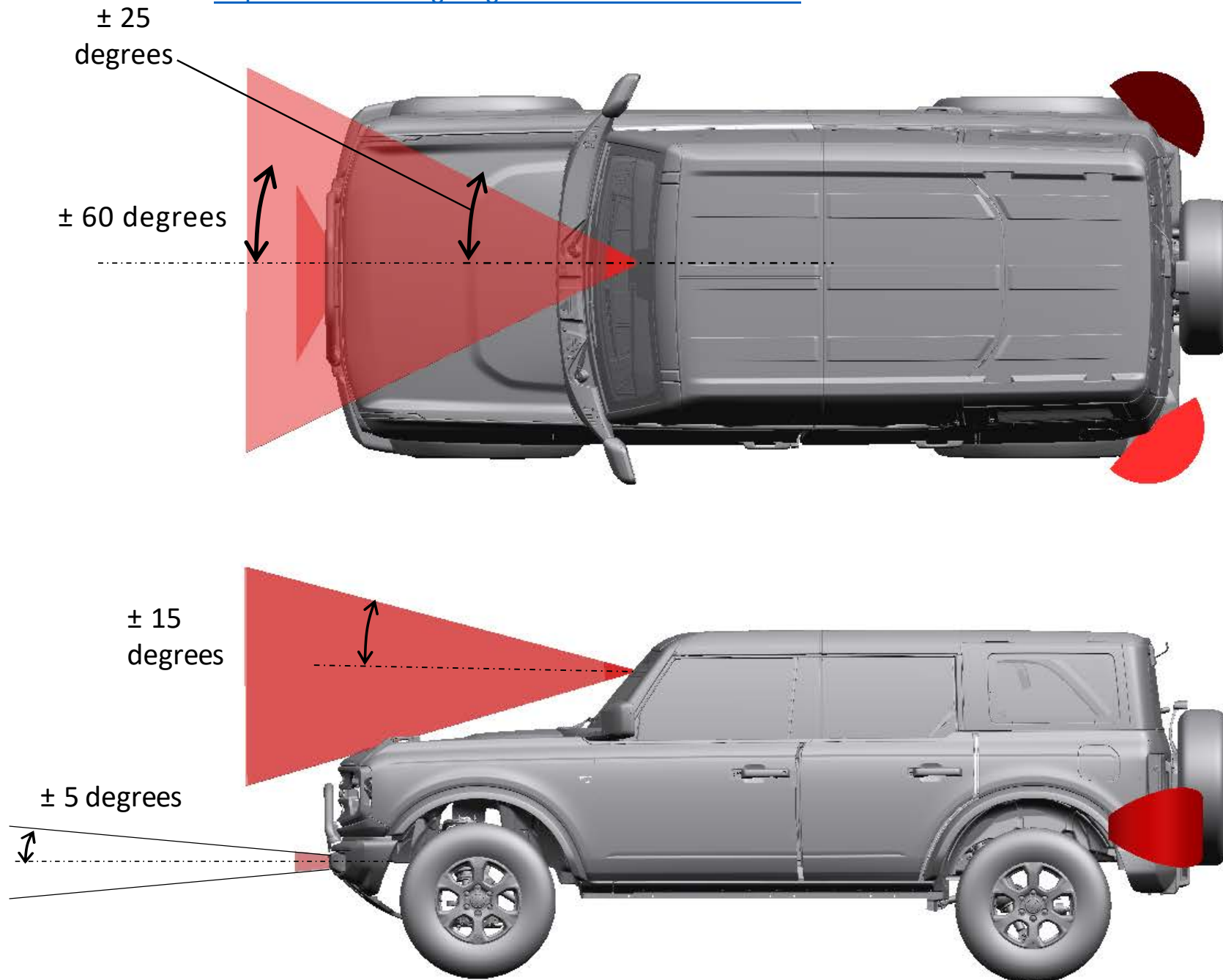
BRONCO

ADAS SENSOR FIELDS OF VIEW (KEEP OUT ZONES)

2021

MODEL YEAR

Installed equipment should not infringe on the sensor field of view zones.
CAD files for 3 and 5 door models are available upon request via SEMA Tech Transfer:
<https://www.semagarage.com/techtransfer/Index>. Reference file FNA7409762





Bronco Equipment Installation Guide

8

BRONCO

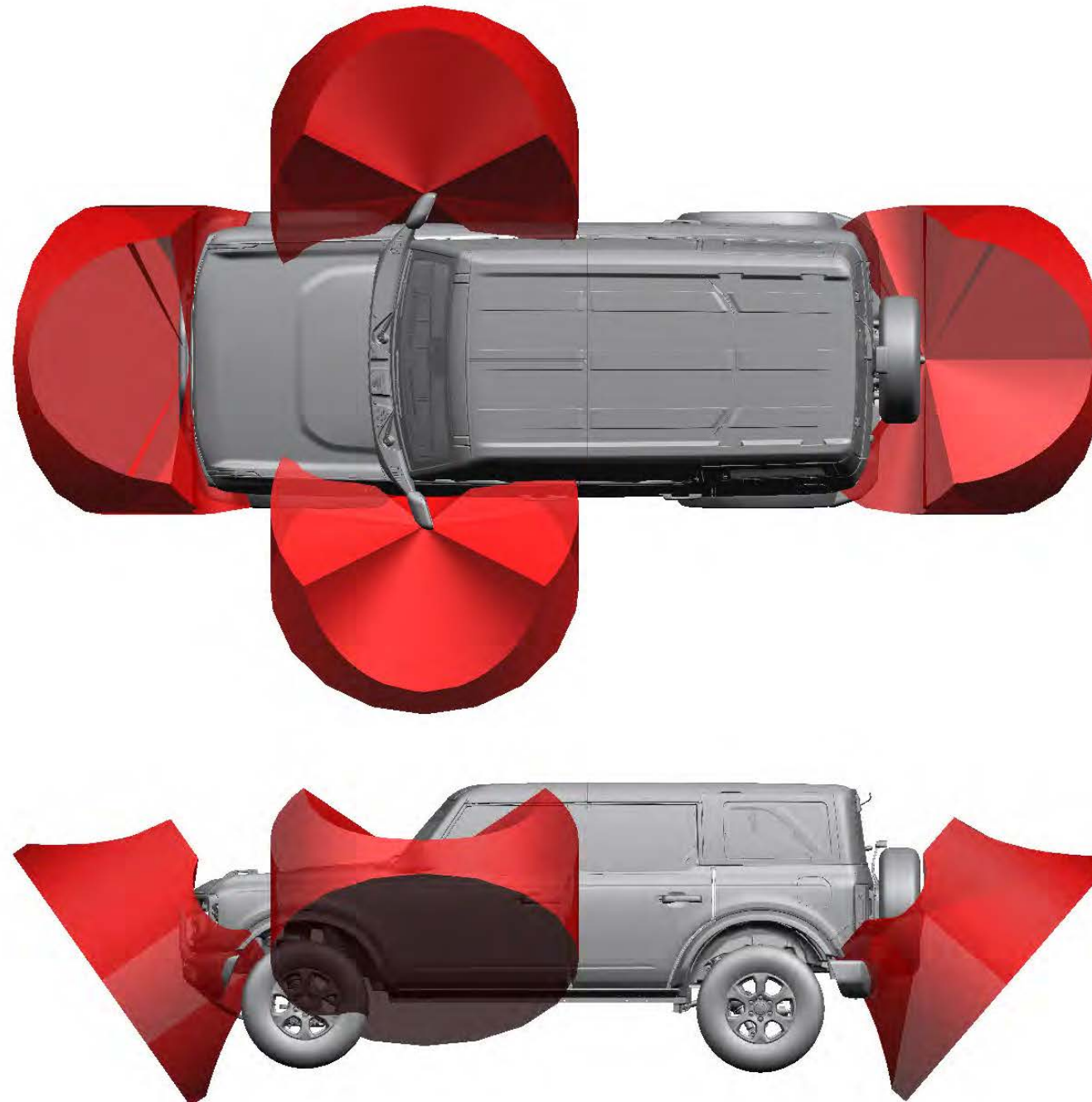
BRONCO

360 DEGREE CAMERA FIELDS OF VIEW

2021

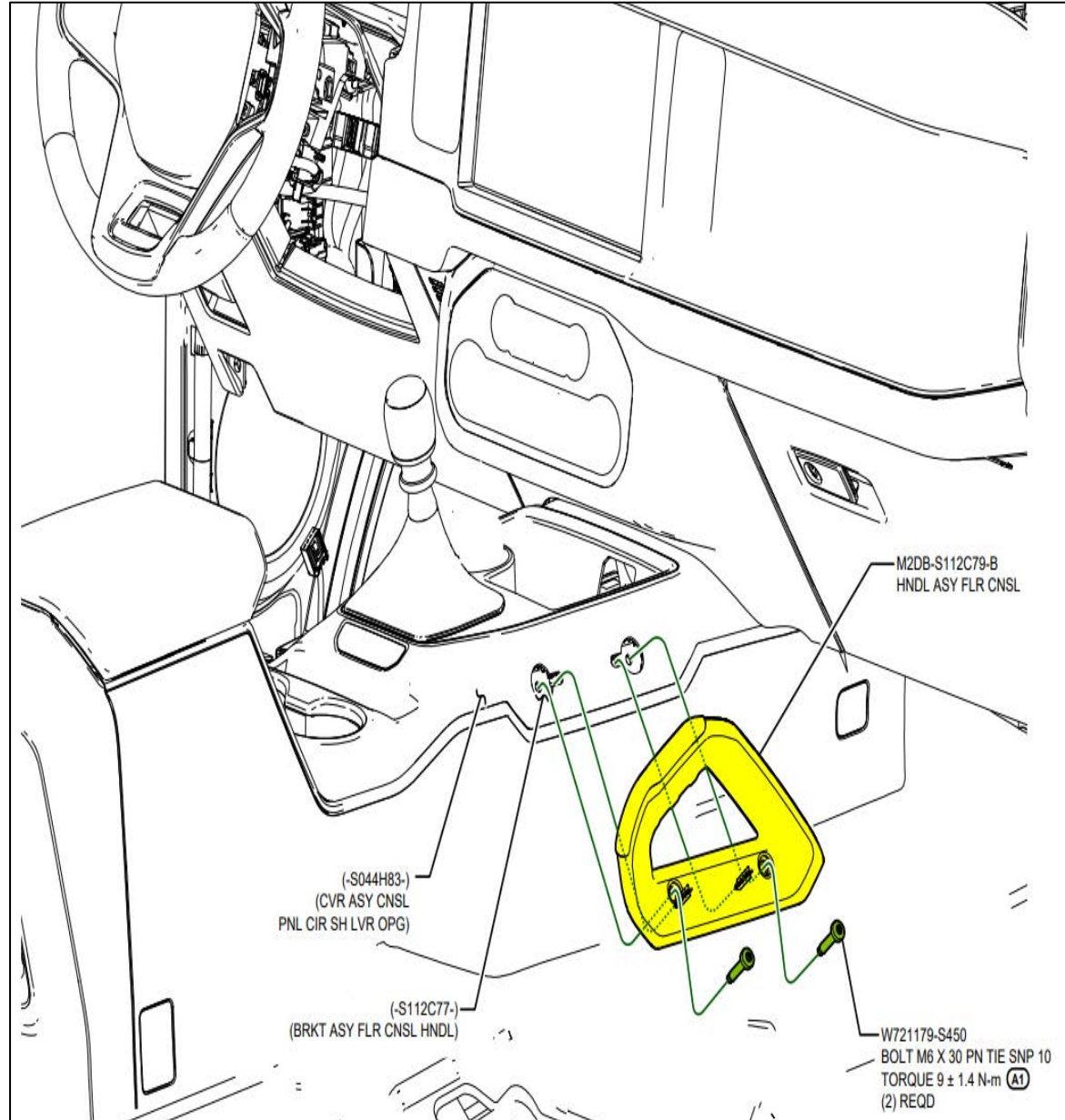
MODEL YEAR

Installed equipment should not infringe on the rear view camera field of view zone.
CAD files for 3 and 5 door models are available upon request via SEMA Tech Transfer:
<https://www.semagarage.com/techtransfer/Index>. Reference file FNA7677526

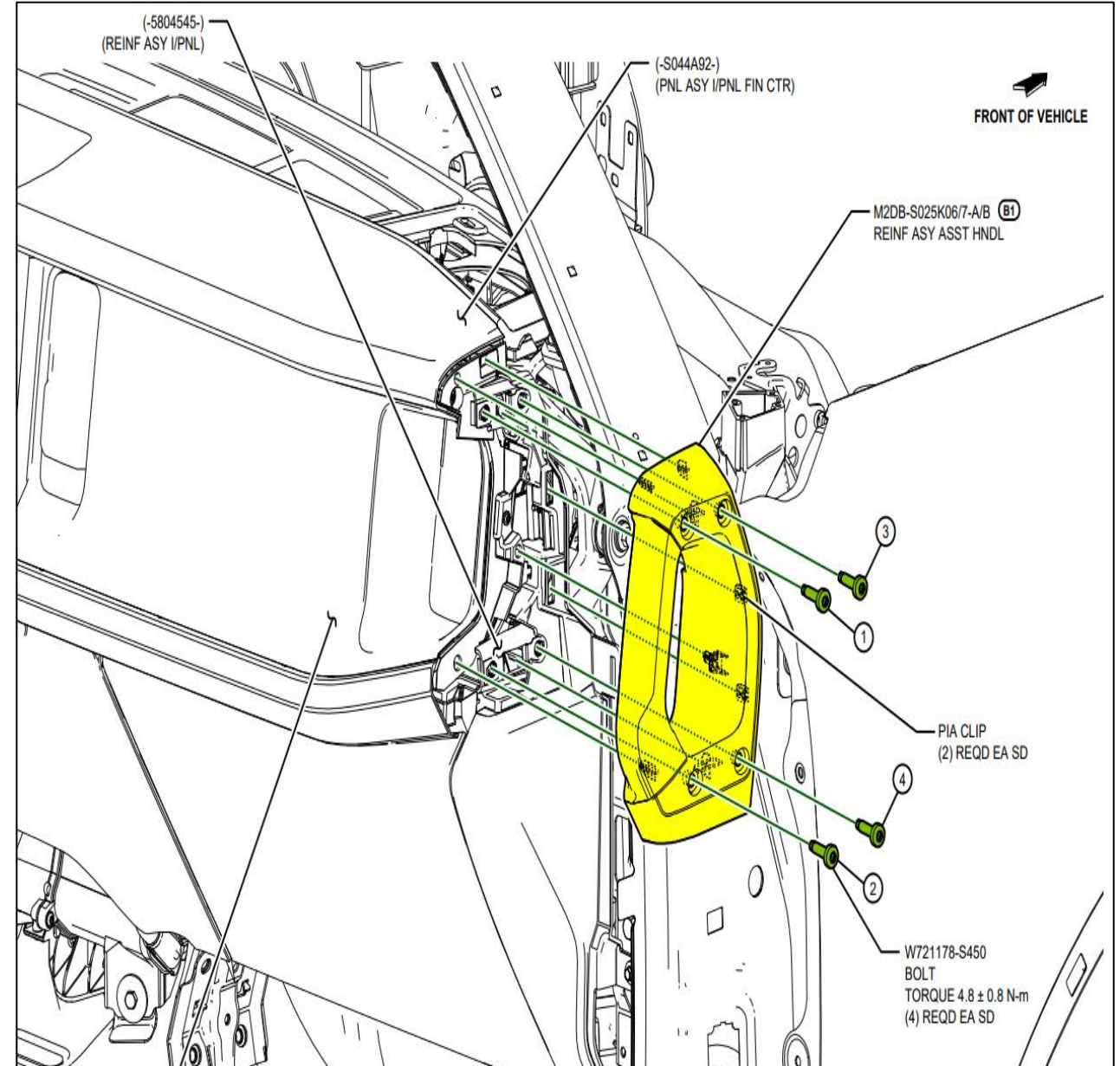


WARNING:

Obstruction of the rear view camera Field of View may result in vehicle non-compliance to FMVSS 111 Rear Visibility standard.

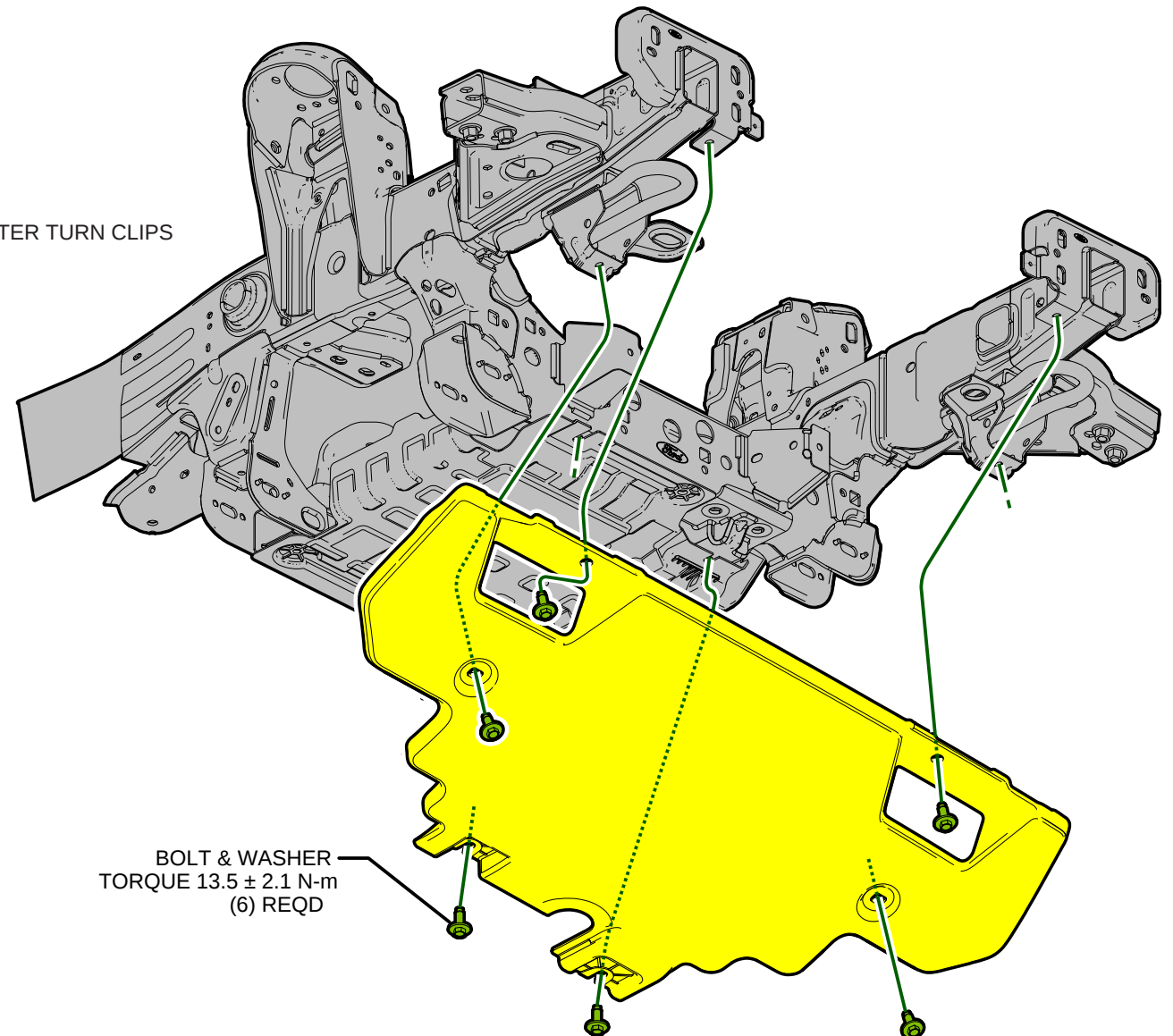
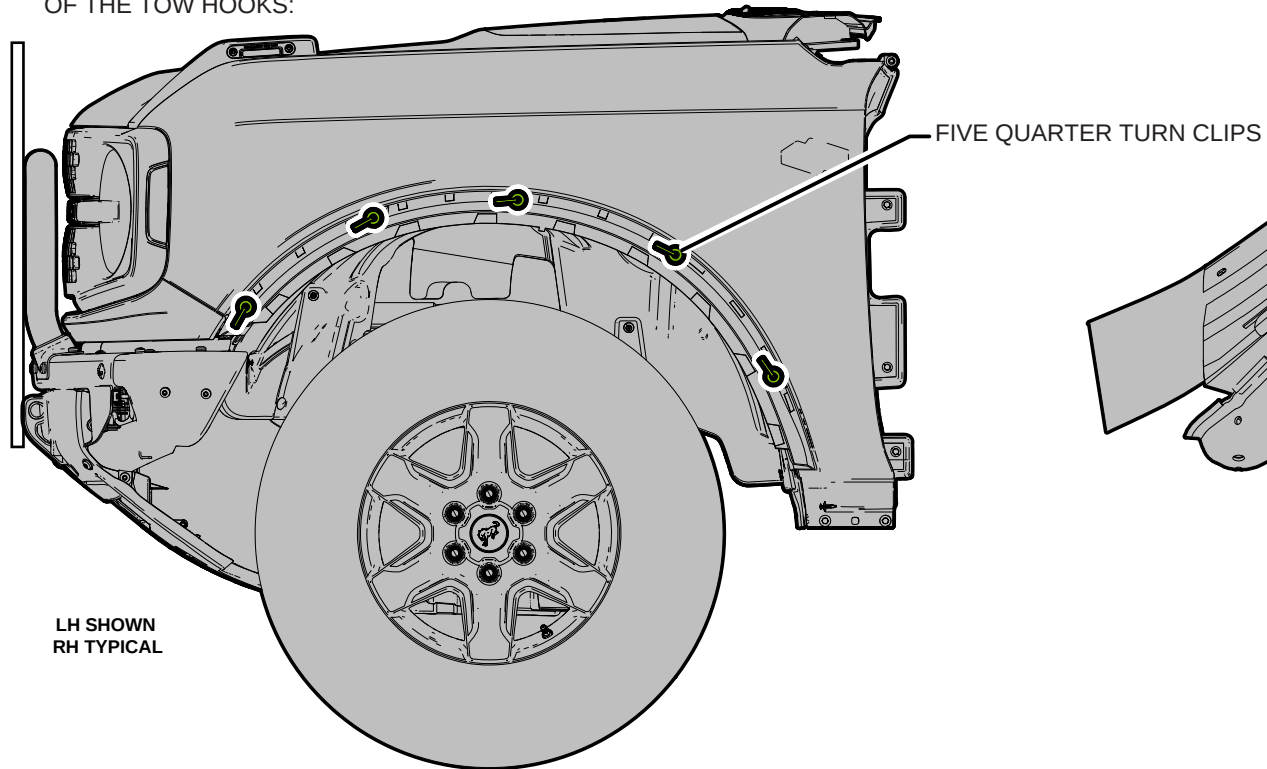


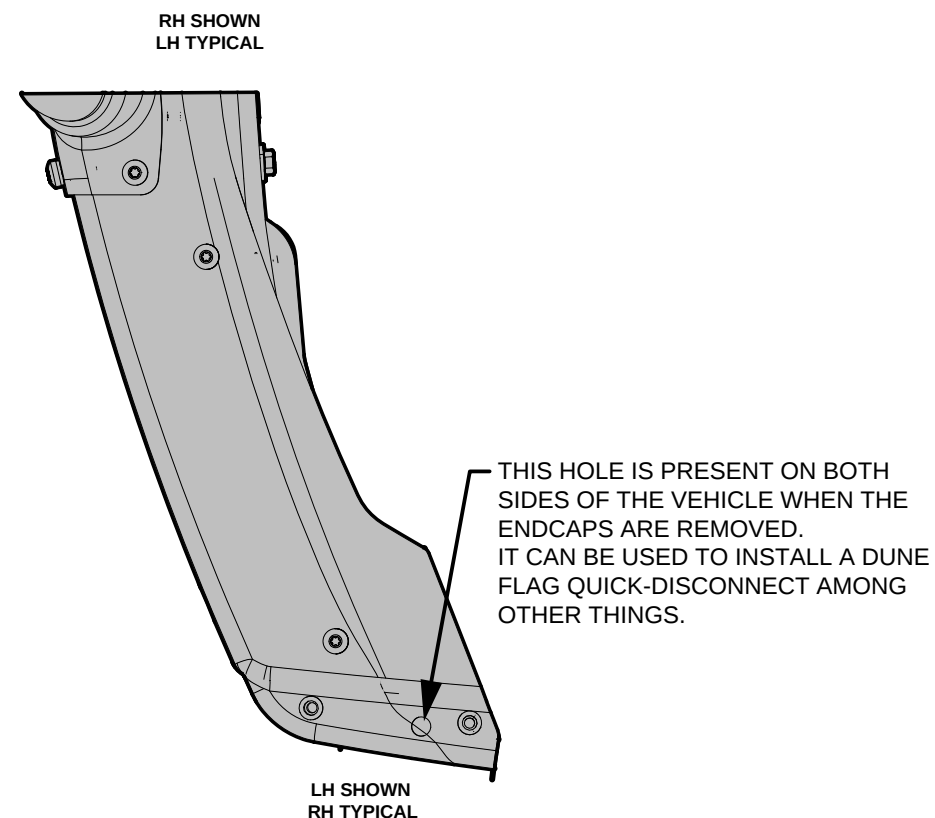
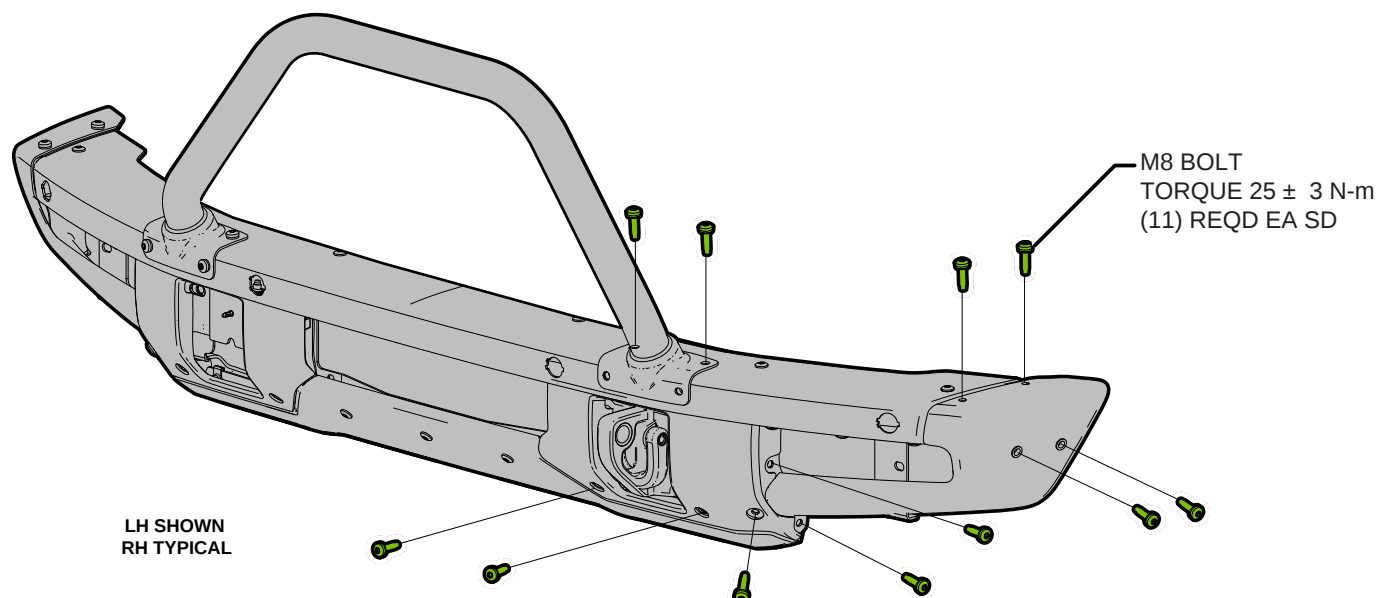
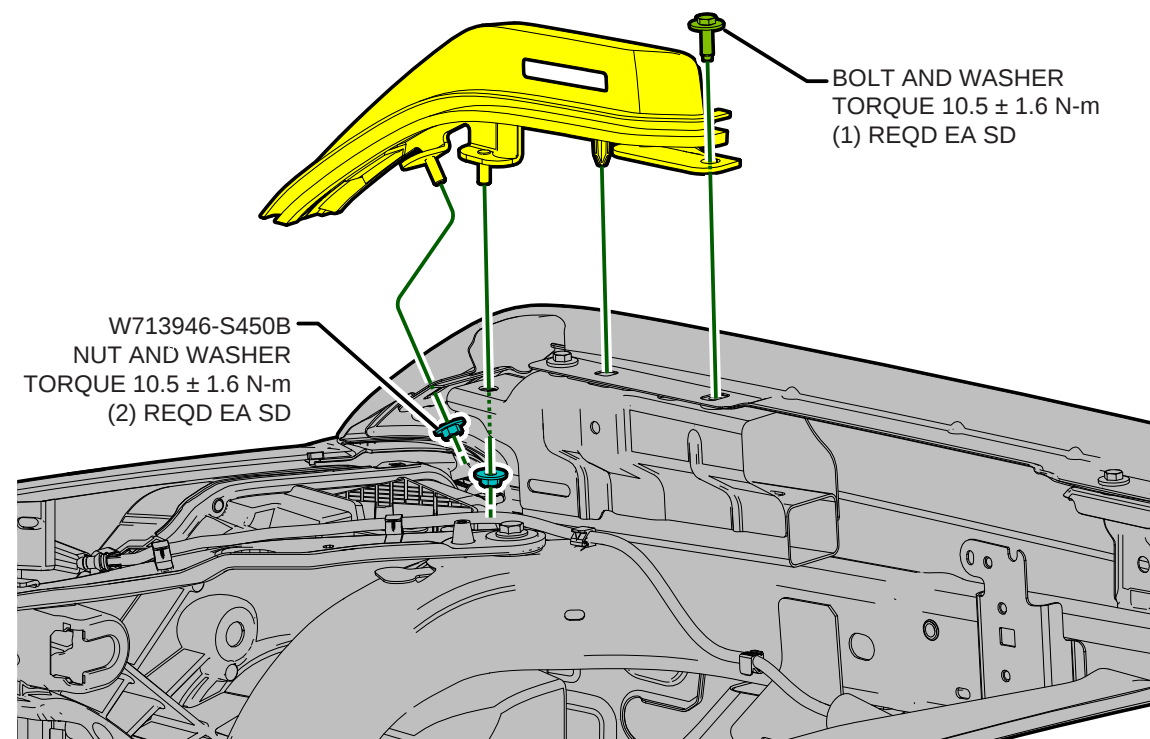
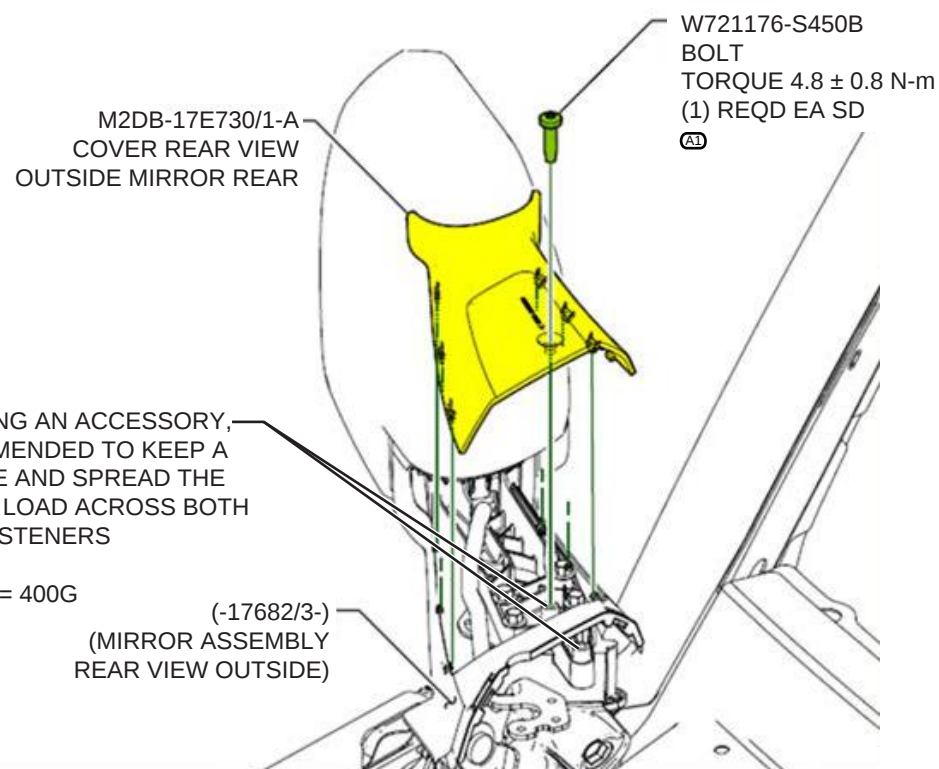
Console Grab Handle

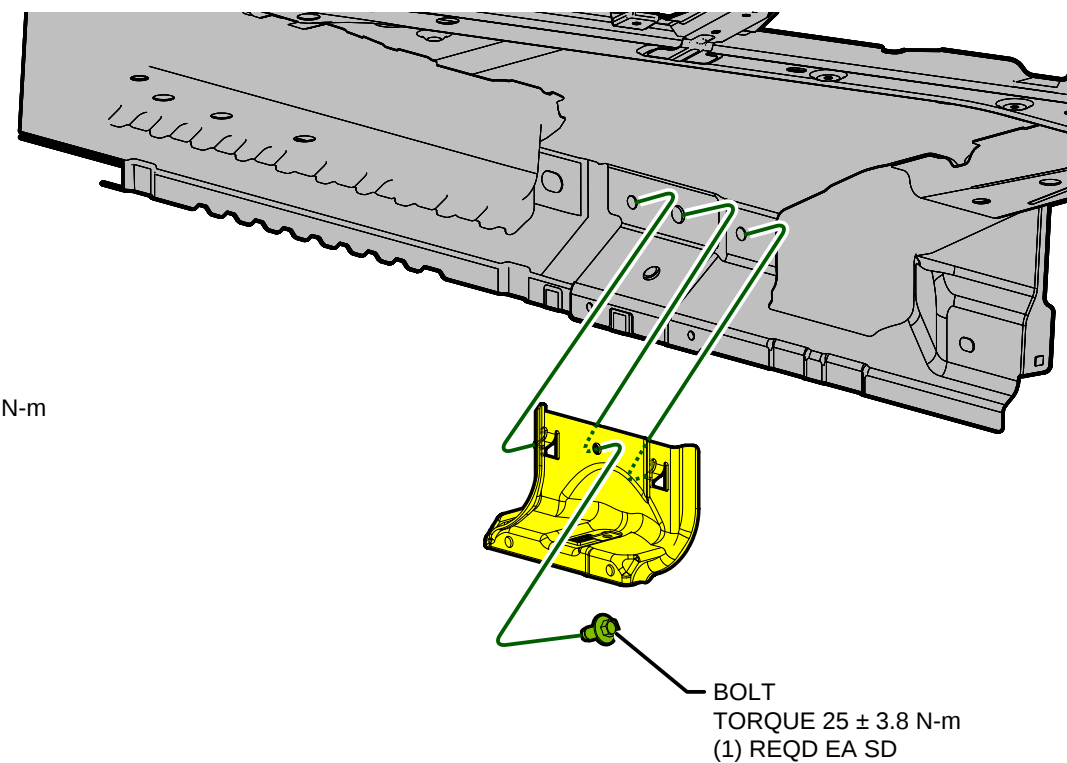
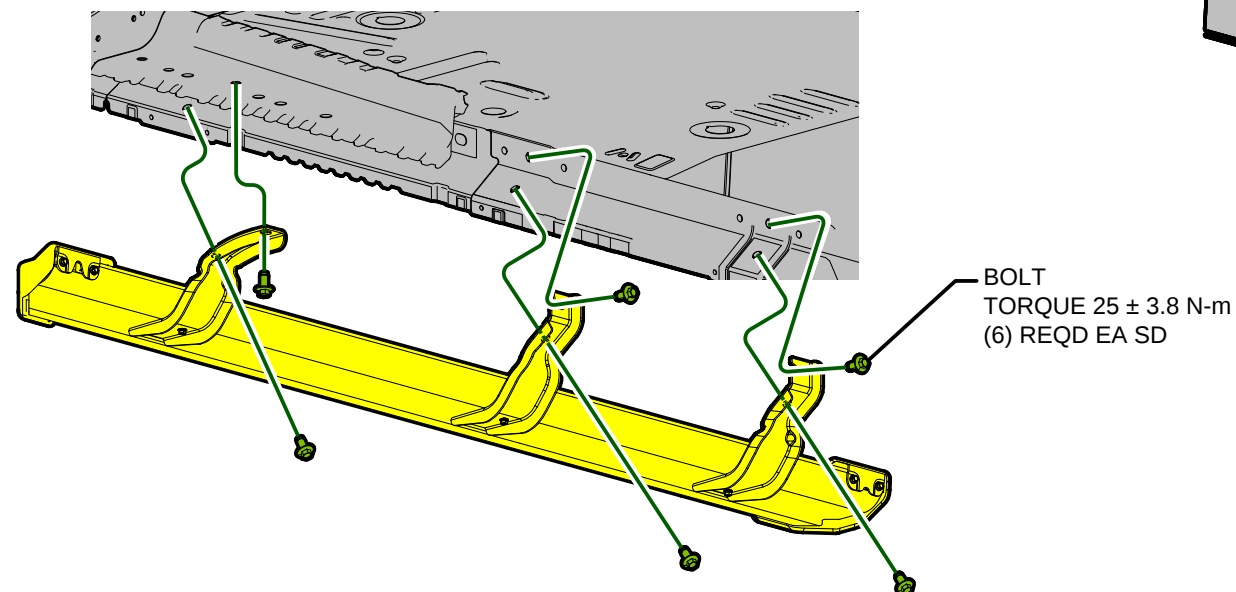
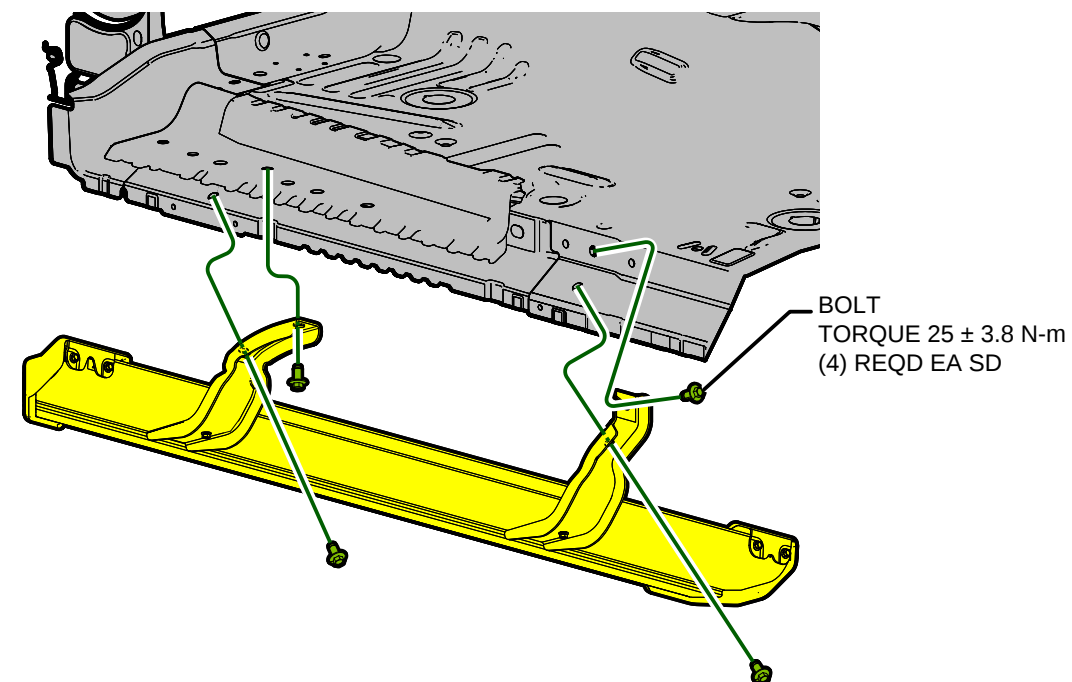
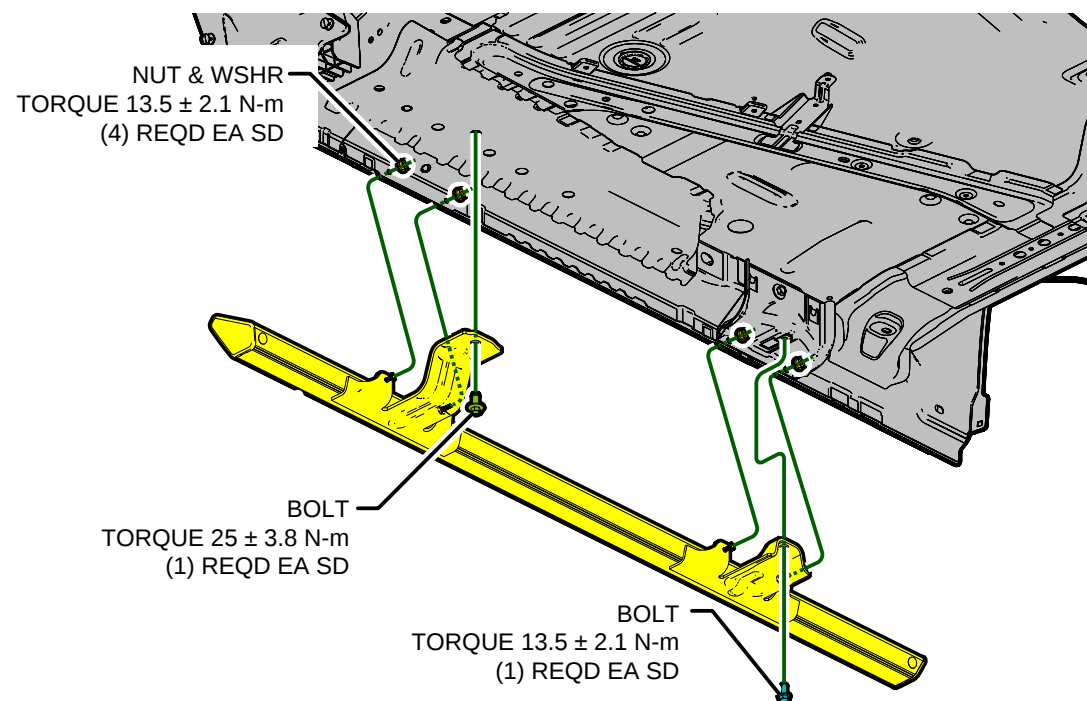


IP Grab Handle

FOR SAFETY REASONS, ACCESSORIES THAT ARE STRUCTURALLY SUBSTANTIAL SHOULD REMAIN REARWARD OF THE TOW HOOKS:



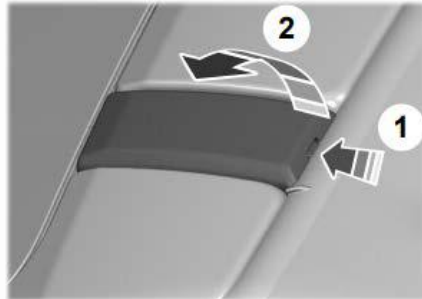




RH SHOWN
LH TYPICAL



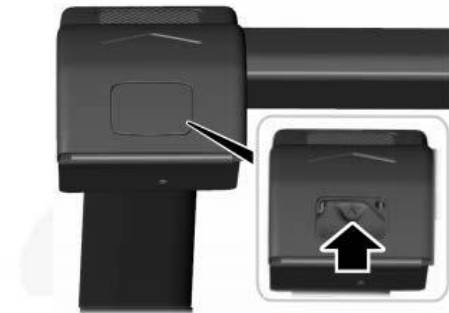
Installing the Roof Rack



1. To remove, press the button on the rear of the cover and rotate forward.
2. Remove the fasteners and remove the trim cover retaining plate.
3. Store the trim cover components.



4. Position the roof rack on the vehicle.
5. Hand start the front roof rack fasteners.
6. Using the provided T30 tool, tighten the front roof rack fasteners. Torque bolts to 7.7 lb.ft (10.5 Nm)
7. Align the cover with the alignment slot and rotate rearward.
8. Hand start the front roof rack cover fasteners.
9. Using the provided T30 tool, tighten the front roof rack cover fasteners. Torque bolts to 5.9 lb.ft (8 Nm).



Note: The rear crossbar is part of the clamping system. If you removed the crossbar you must install it first for proper attachment to the hard top.

10. Using the supplied special tool, tighten the fastener.

Note: The supplied special tool stops turning the fastener when you have proper torque applied.

11. Install the rear roof rack fastener cover.

See Owners Manual for full instructions

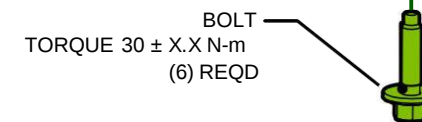
ROOF RACK LOAD CAPACITIES (G2745762)

Maximum Recommended Load Amounts

Description	Maximum Recommended Load
When in motion	110 lb (50 kg)
When stationary	450 lb (204 kg)
Vehicles with 315/70R17 Tires	0 lb (0 kg)

Note: The maximum recommended load is based on the load being evenly distributed on the crossbars.

DOOR HINGE BOLTS



BOLT
TORQUE $30 \pm X.X$ N-m
(6) REQD

Maximum Recommended Door Weights

3 Door	5 Door	Tailgate
62lbs Front	55lbs Front	133lbs
	44lbs Rear	



Bronco Equipment Installation Guide

14

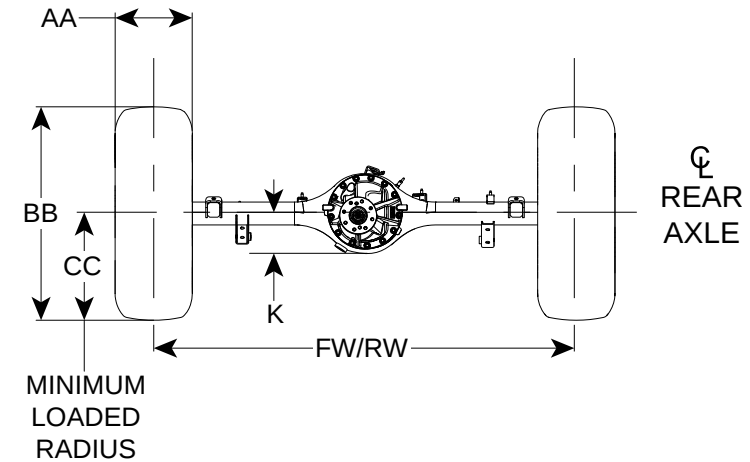
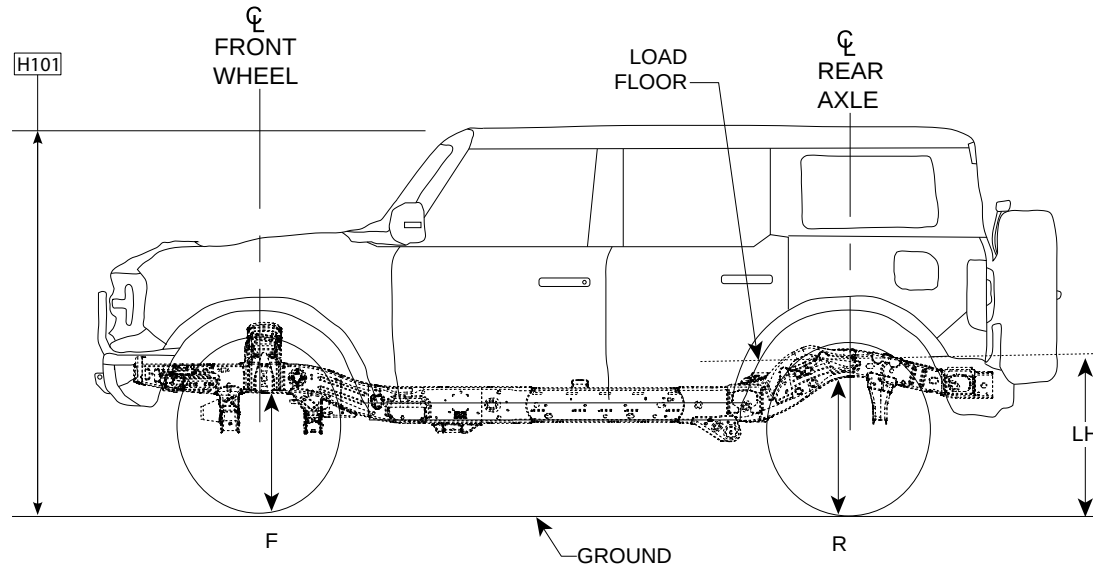
BRONCO

BRONCO

AXLE / TIRE / VEHICLE HEIGHT DATA

2021

MODEL YEAR



Model	WB inches	GVWR pounds	Tire	F Height @ Front Wheel to Bottom of Frame mm [in]		R Height @ Rear Wheel to Bottom of Frame mm [in]		LH mm [in]		H101 mm [in]		K mm [in]	AA mm [in]	BB mm [in]	CC mm [in]	W102-1 FW mm [in]	W102-1 RW mm [in]
				Height @ Base Curb Weight	Loaded Height @ Spring Rating	Height @ Base Curb Weight	Loaded Height @ Spring Rating	Empty	Loaded	Empty	Loaded						
2 Door Base	100.4	5700	P255/70R16	439 [17.3]	408 [16.1]	555 [21.9]	488 [19.2]	759 [29.9]	684 [26.9]	1826 [71.9]	1759 [69.3]	138 [5.4]	255 [10.0]	764 [30.1]	366 [14.4]	1650 [65.0]	1650 [65.0]
2 Door Badlands		5800	LT285/70R17	490 [19.3]	463 [18.2]	605 [23.8]	547 [21.5]	809 [31.9]	744 [29.3]	1875 [73.8]	1818 [71.6]	138 [5.4]	286 [11.3]	838 [33.0]	399 [15.7]	1650 [65.0]	1650 [65.0]
2 Door Sasquatch		5800	LT315/70R17	521 [20.5]	500 [19.7]	640 [25.2]	585 [23.0]	845 [33.3]	782 [30.8]	1911 [75.2]	1856 [73.1]	138 [5.4]	313 [12.3]	880 [34.6]	421 [16.6]	1698 [66.9]	1700 [66.9]
4 Door Base	116.1	6060	P255/70R16	438 [17.2]	404 [15.9]	555 [21.9]	485 [19.1]	758 [29.8]	681 [26.8]	Soft Top 1853 [73.0]	Soft Top 1785 [70.3]	138 [5.4]	255 [10.0]	764 [30.1]	365 [14.4]	1650 [65.0]	1650 [65.0]
										Hard Top 1827 [71.9]	Hard Top 1761 [69.3]						
4 Door Badlands		6180	LT285/70R17	488 [19.2]	457 [18.0]	605 [23.8]	545 [21.5]	808 [31.8]	743 [29.3]	Soft Top 1903 [74.9]	Soft Top 1845 [72.6]	138 [5.4]	286 [11.3]	838 [33.0]	399 [15.7]	1650 [65.0]	1650 [65.0]
										Hard Top 1876 [73.9]	Hard Top 1821 [71.7]						
4 Door Sasquatch		6180	LT315/70R17	520 [20.5]	493 [19.4]	640 [25.2]	583 [23.0]	844 [33.2]	781 [30.7]	Soft Top 1938 [76.3]	Soft Top 1883 [74.1]	138 [5.4]	313 [12.3]	880 [34.6]	421 [16.6]	1698 [66.9]	1700 [66.9]
										Hard Top 1912 [75.3]	Hard Top 1858 [73.1]						

(1) The Height Data shown represents dimensions of a base/standard vehicle with no options. Actual height may vary due to production tolerances.

(2) Vehicle ride heights are given at tire minimum loaded radius.

*Note:

2-Door is Hard Top Only

4-Door has both Soft Top and Hard Top

Optional Roof Rack Add 92mm/[3.6] for 2-Door, Add 86mm/[3.4] for 4-Door Hard Tops



<https://fordbbas.com>



Bronco Equipment Installation Guide

15

BRONCO

BRONCO

AXLE AND TRANSMISSION RATIOS

2021

MODEL YEAR

Bronco Axle Availability													
Final Drive Ratio	Front Differential	Rear Differential	Base		Big Bend		Black Diamond		Outer Banks	Wildtrak	Badlands		First Edition
			Manual	Auto	Manual	Auto	Manual	Auto	Auto	Auto	Manual	Auto	Auto
3.73	Open	Open		S		S			S				
4.27	Open	Locking				O			O				
4.46	Open	Open	S		S								
	Open	Locking			O		S	S					
	Locking	Locking										S	
4.7	Locking	Locking		O		O		O	O	S	S	O	S

Bronco Transmission Ratios			
10SP Auto		7sp Manual	
Gear	Ratio (to 1)	Gear	Ratio (to 1)
1st	4.714	Crawler	6.588
2nd	2.997	1st	4.283
3rd	2.149	2nd	2.365
4th	1.769	3rd	1.453
5th	1.521	4th	1
6th	1.275	5th	0.776
7th	1	6th	0.646
8th	0.853	Reverse	5.625
9th	0.689		
10th	0.636		
Reverse	4.885		





Bronco Equipment Installation Guide

16

BRONCO

BRONCO WHEEL & TIRE DATA

2021

MODEL YEAR

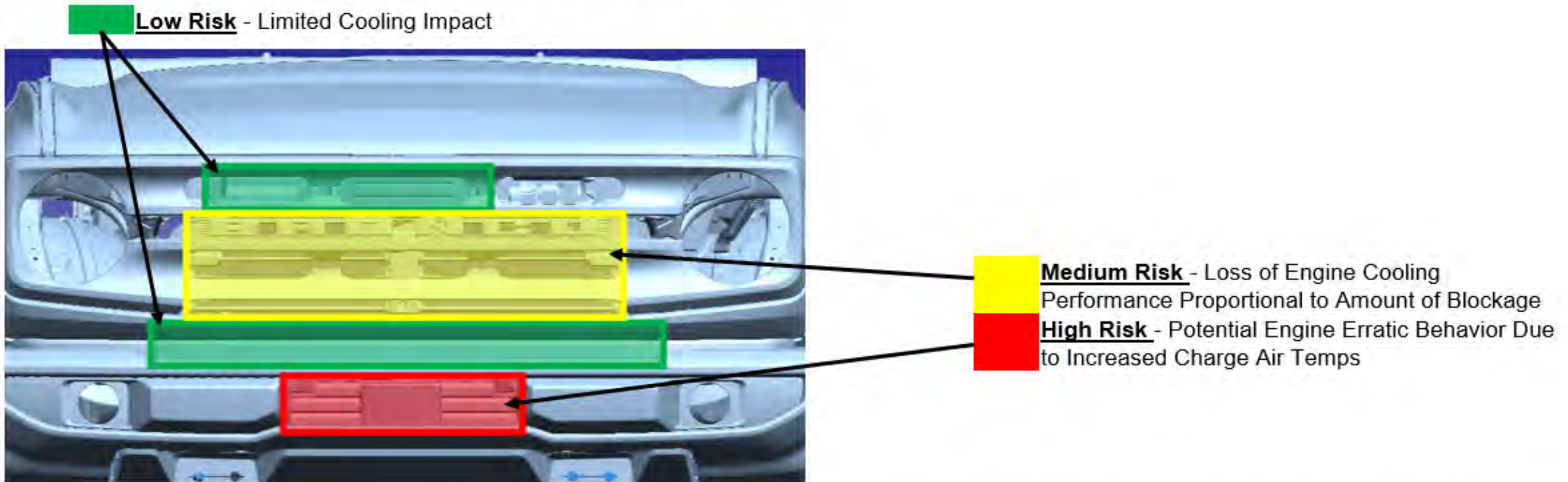
Tire Specification			
Size	Rim Width (in.)	Section Width (in.)	Static Loaded Radius (in.)
255/70R16 A/S	7	256	343
255/75R17 A/T	7.5	262.6	362
255/70R18 A/T	7.5	257.8	365
LT265/70R17 A/T	7.5	270.6	400
LT285/70R17 A/T	8	280	388
LT285/70R17 M/T	8	292	386
LT315/70R17 M/T	8.5	320	404

Wheel Specification					
Wheel Type	Wheel Size (in.)	Wheel Offset (in./mm)	Bolt Circle (in./mm)	No. of Studs	Maximum Wheel Capacity Load Front/Rear
Base	16x7	2.1/55	5.5/139.7	6	1695/1793
Big Bend	17x7.5	2.1/55	5.5/139.7	6	1650/1833
Outer Banks	18x7.5	2.1/55	5.5/139.7	6	1675/1862
Black Diamond	17x7.5	2.1/55	5.5/139.7	6	1635/1804
Badlands	17x8	2.1/55	5.5/139.7	6	1675/1862
Optional Badlands	17x8	2.1/55	5.5/139.7	6	1650/1833
Sasquatch	17x8.5	1.2/30	5.5/139.7	6	1784/2039

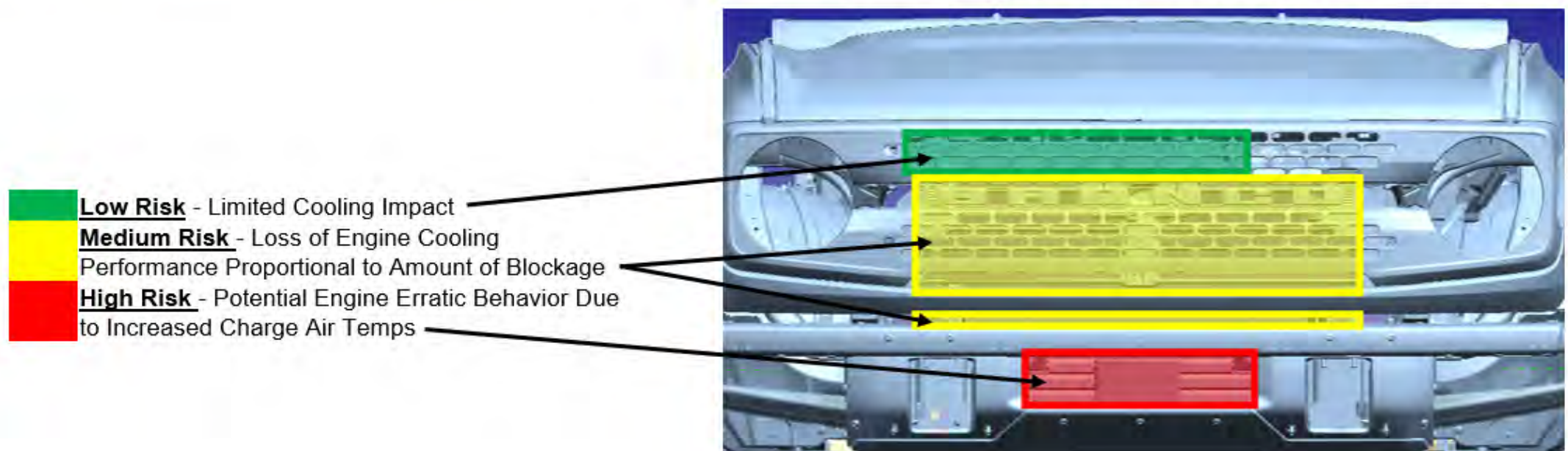




Base, Big Bend, Outer Banks, Black Diamond Series



Badlands, Wildtrak, First Edition Series





BRONCO ELECTRICAL WIRING ACCESSORY SWITCHES AND WIRING

The Bronco is available with an Auxilliary Switch package that includes six switches wired to six powered circuits and five non-powered circuits to ease the installation of aftermarket equipment. The powered circuits are terminated in blunt cut wires in the underhood location shown. These powered circuits can be completed using the non-powered circuits provided and/or your own wire routing. Terminal locations for the non-power circuits are shown on the next page. Circuits provided are intended to complete the accessory power feed, grounds must be established for each powered circuit. Circuits are active with the ignition in the "on" position only.

Powered Circuits

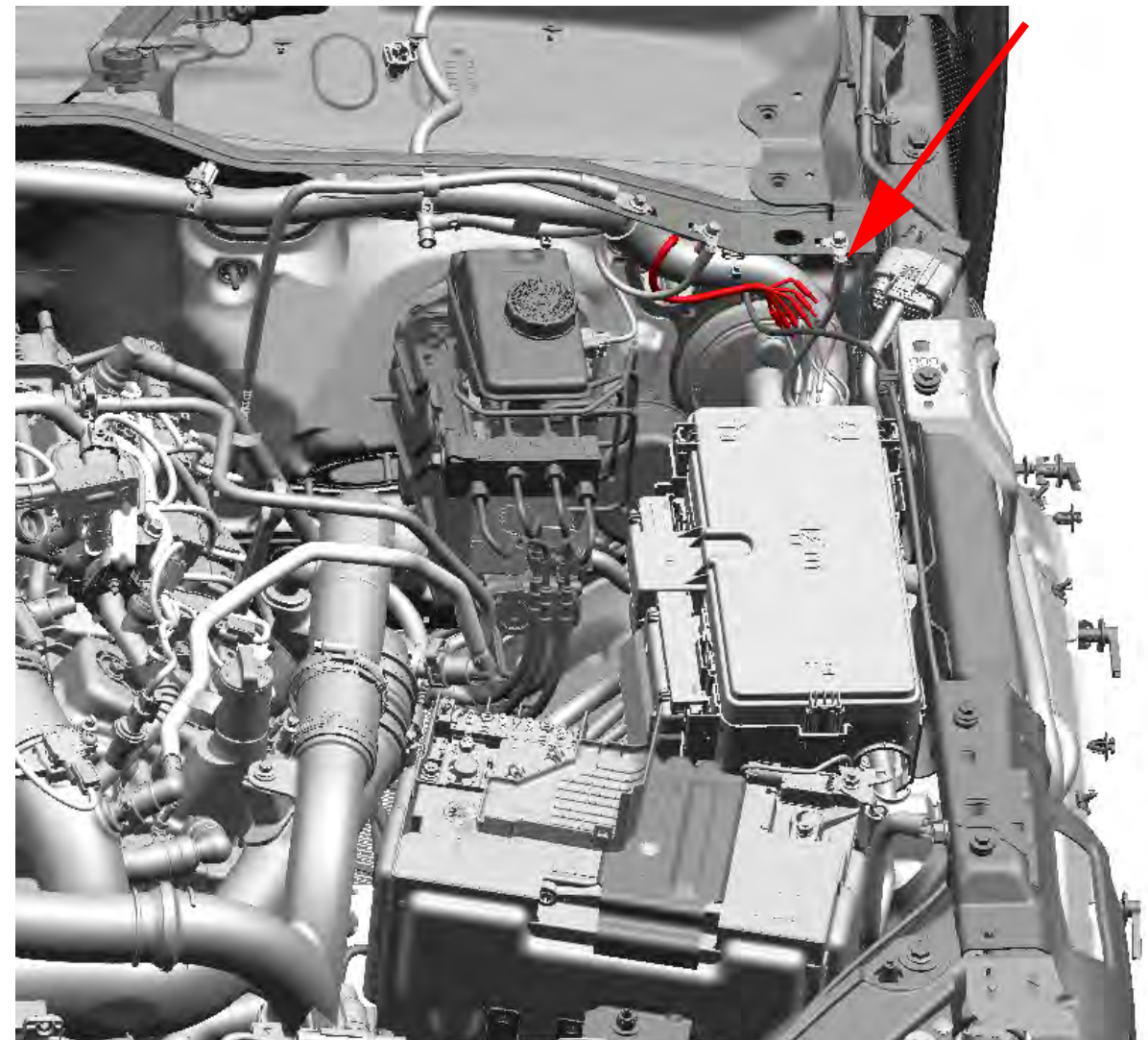
Switch Assignment	Wire Color	Wire Size	Fuse Size
AUX 1	Yellow	1.5 mm ²	30A
AUX 2	Green/Brown	1.5 mm ²	15A
AUX 3	Violet/Green	0.75 mm ²	10A
AUX 4	Brown	0.75 mm ²	10A
AUX 5	Blue/Orange	0.75 mm ²	10A
AUX 6	Yellow/Orange	0.75 mm ²	10A

Non-Powered Circuits

Terminal Location 1	Terminal Location 2	Wire Color	Wire Size (1)
A1 - Engine Compartment near Fuse Box	A2 - Passenger Compartment RH	Brown/White	1.5 mm ²
B1 - Engine Compartment near Fuse Box	B2 - Passenger Compartment RH	White	1.5 mm ²
C1 - Engine Compartment near Fuse Box	C2 - Front Grille	Violet/Grey	1.5 mm ²
D1 - Passenger Compartment RH	D2 - Right-hand Visor	Grey/Orange	1.5 mm ²
E1 - Passenger Compartment RH	E2 - Right-hand Rear Quarter Panel	White/Orange	1.5 mm ²

(1) Wiring for non-powered circuits is sized to work with any of the powered circuits.

Powered Circuit Terminal Location - Underhood





Bronco Equipment Installation Guide

19

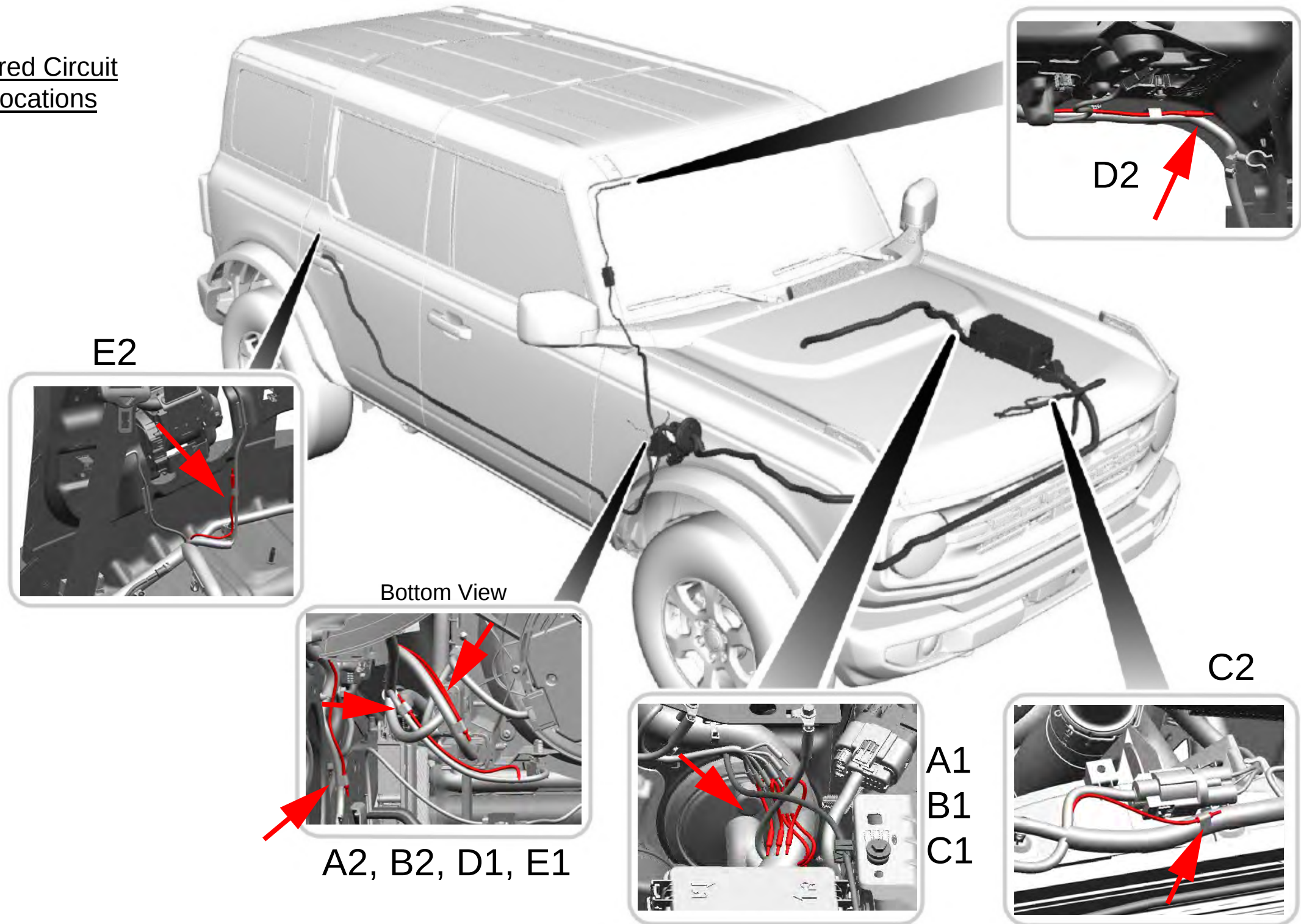
BRONCO

BRONCO ELECTRICAL WIRING ACCESSORY SWITCHES AND WIRING (Con't)

2021

MODEL YEAR

Non-Powered Circuit Terminal Locations





BRONCO ELECTRICAL WIRING ADDED CIRCUITS

B+ (Hot at All Times)

Any added circuits must be appropriately fused (as close as possible to the battery) and connected to the positive battery terminal in the locations shown.

- The maximum recommended thickness of terminal(s) being installed is 2.5mm.
- The two open terminal studs have different size threads (see below). Use Property Class 8 or 10 nuts for this application.

Circuit Grounding

Ground wires for winch or other high current accessories can be connected directly to the battery B- terminal in the location shown. If grounding to the body, do not use existing vehicle grounding points, new ground location(s) must be established.

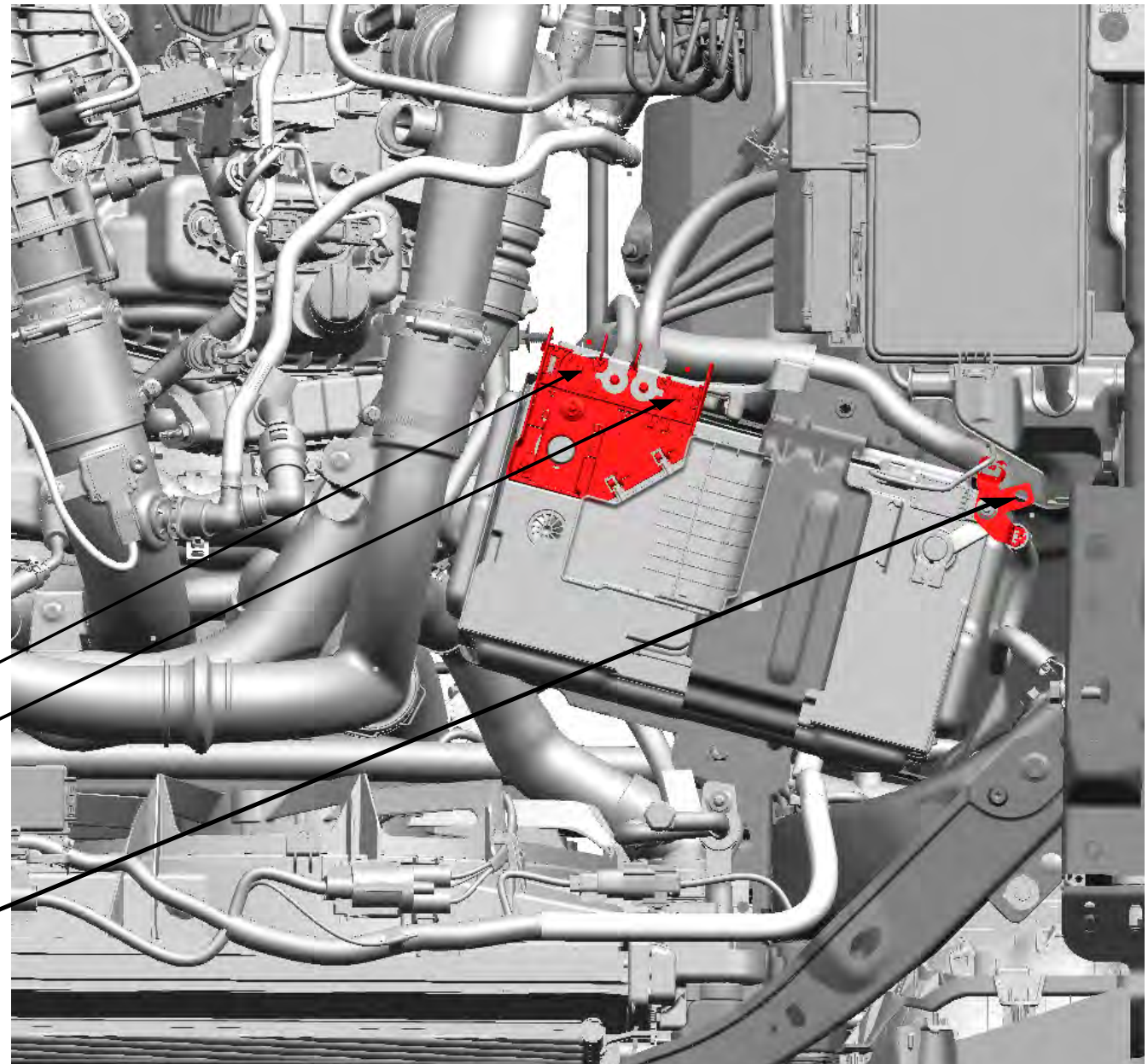
Locations for B+ connection

M5 Nut, torque to 5.4 +/- 0.9 Nm

M6 Nut, torque to 10 +/- 1.5 Nm

Max eyelet diameter: 18 mm

Location for B- connection
8.5 mm diameter hole

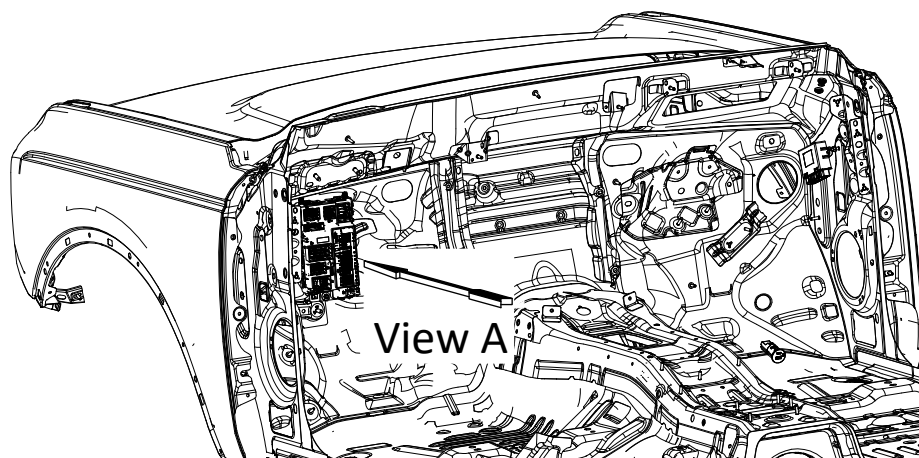




BRONCO ELECTRICAL WIRING ADDED CIRCUITS, CONT'D

Delayed Accessory

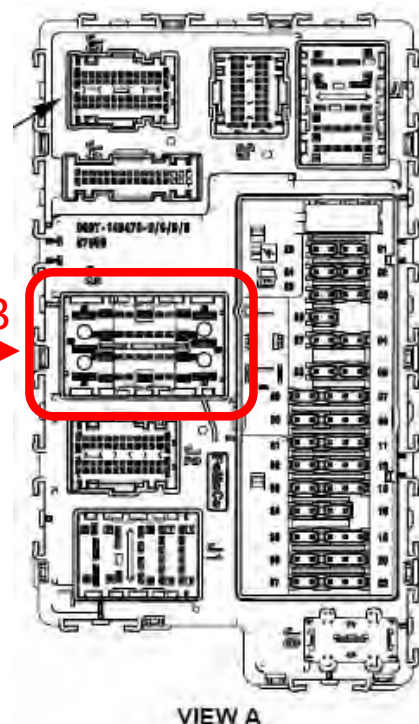
When installing auxiliary equipment that is active with delayed accessory, a BCM feed can be used to directly power added circuit(s) not exceeding 30A consumption. Install a female terminal kit (DU2Z-14474-JA) into the open location in BCM Connector 3, Pin 36 to start the circuit(s). This BCM output is protected by BCM Fuse #38, rated at 30 Amps. If power consumption of added equipment exceeds 30 Amps, the terminal kit inserted in BCM connector 3, pin 36 can be used to drive relay(s) connected directly to B+.



Run / Start

When installing auxiliary equipment that is active with Run / Start condition, a relay connected to B+ must be installed. That relay can then be driven by a run / start feed from the BCM. Install a female terminal kit (DU2Z-14474-DA) into the open location in BCM Connector 3, Pin 23. The terminal kit should then be connected to the relay input (can install a switch between the fuse and relay). This circuit is protected by BCM fuse #22, rated at 5 Amps.

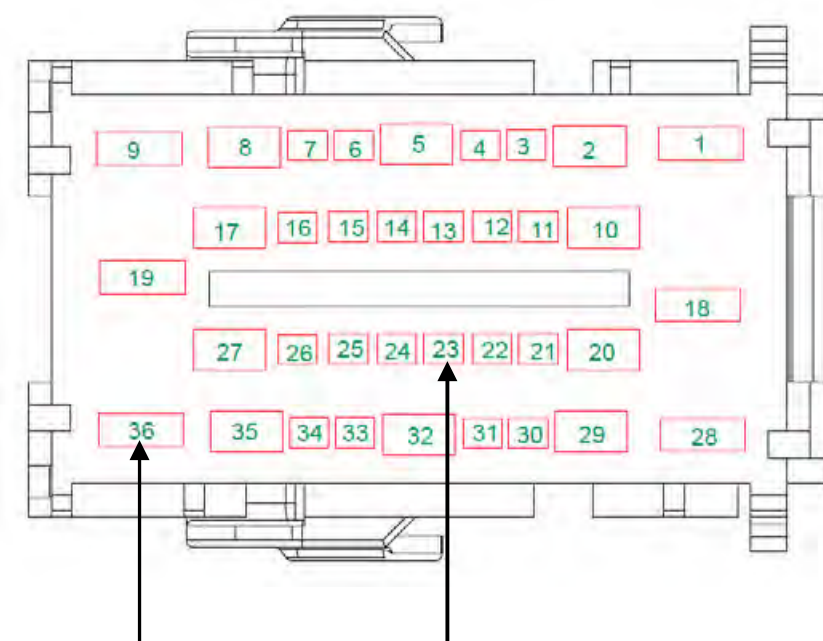
BCM Front View



Connector 3

Note: BCM Connector 3 has a black plastic cover that will need to be temporarily removed to install the terminal kit(s)

View of Front Face of BCM Connector 3



Delayed Accessory Feed

Run / Start Feed

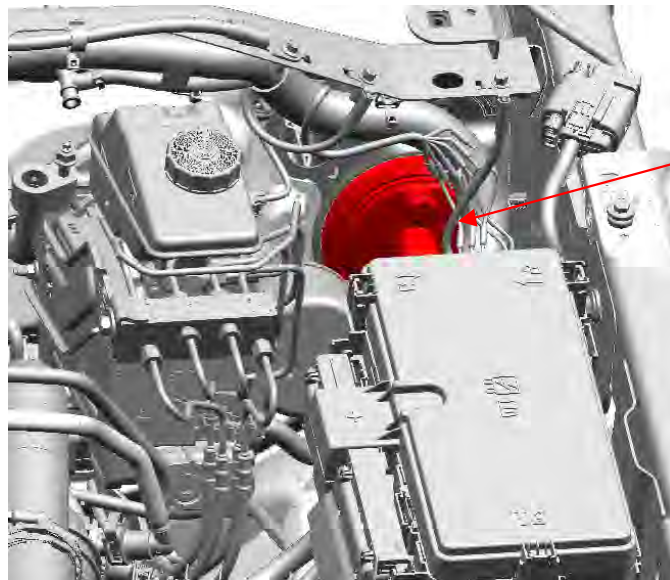


BRONCO ELECTRICAL WIRING WIRING PASS THROUGH LOCATIONS

Passing wires through the vehicle dash panel is best done using the existing wiring grommets, which have a provision specifically for that purpose (See Detail A). Detail A shows the driver side grommet, there is also a similar grommet on the passenger side. Passing wires to roof mounted accessories should be done under the passenger side roof ditch molding as shown in Detail B (drilling required).

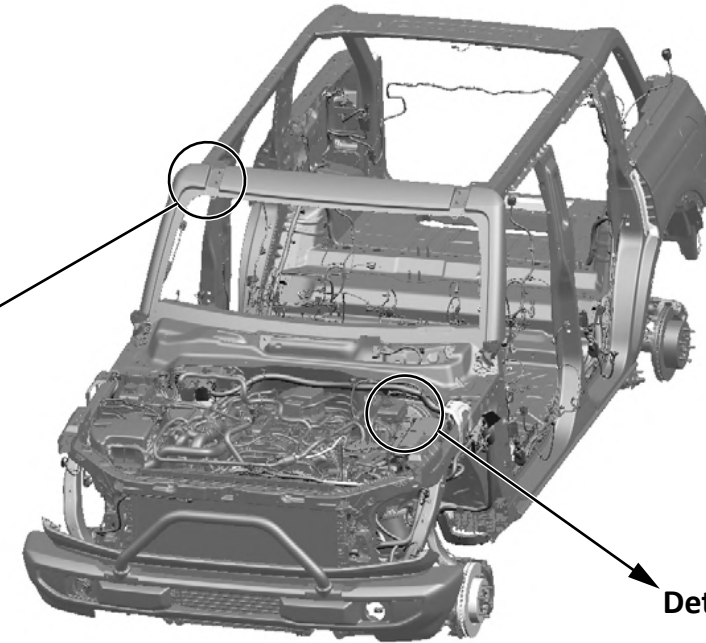
LH Dash Wiring Grommet

(View rotated for better visibility)



Dash Wire
Grommet

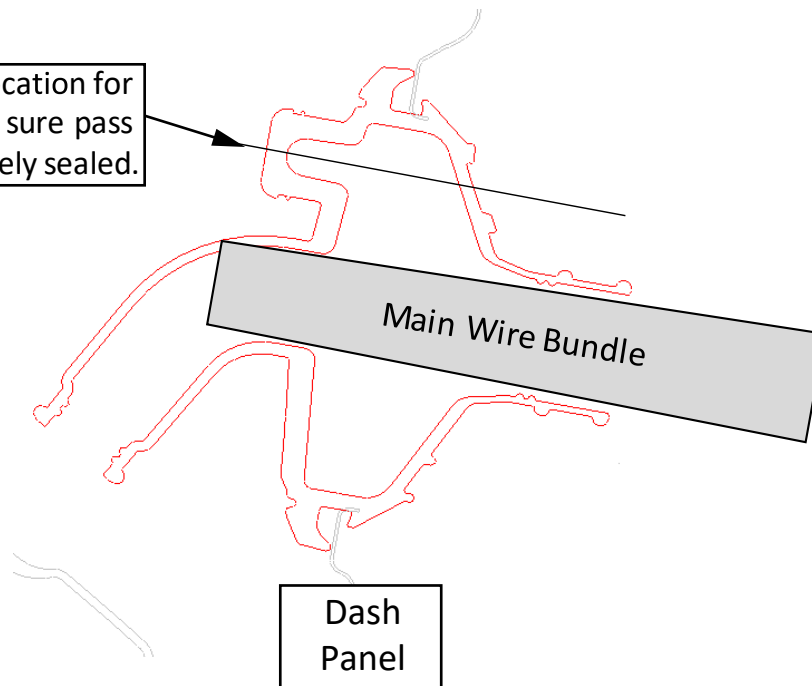
Detail B



Detail A

Detail A - Section Through Dash Wiring Grommet

Pass Through Location for
Additional Wiring. Make sure pass
through is adequately sealed.

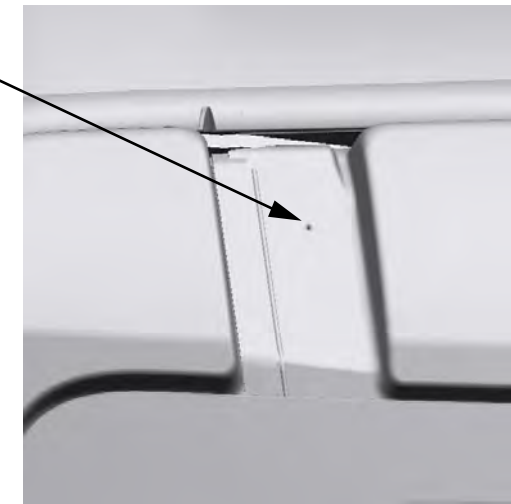


Main Wire Bundle

Dash
Panel

Remove RH Roof Ditch
Molding and Molding
Retainer. Use the dimple
provided in the sheet metal
as a drill start point, drilling
perpendicular to the exterior
sheet metal surface. MAX
DRILL SIZE is 7/16" diameter.
Make sure pass through is
adequately sealed. When re-
installing the molding
retainer, torque attachment
nuts to 10.5 +/- 1.6 Nm.

Detail B - Roof Ditch Molding





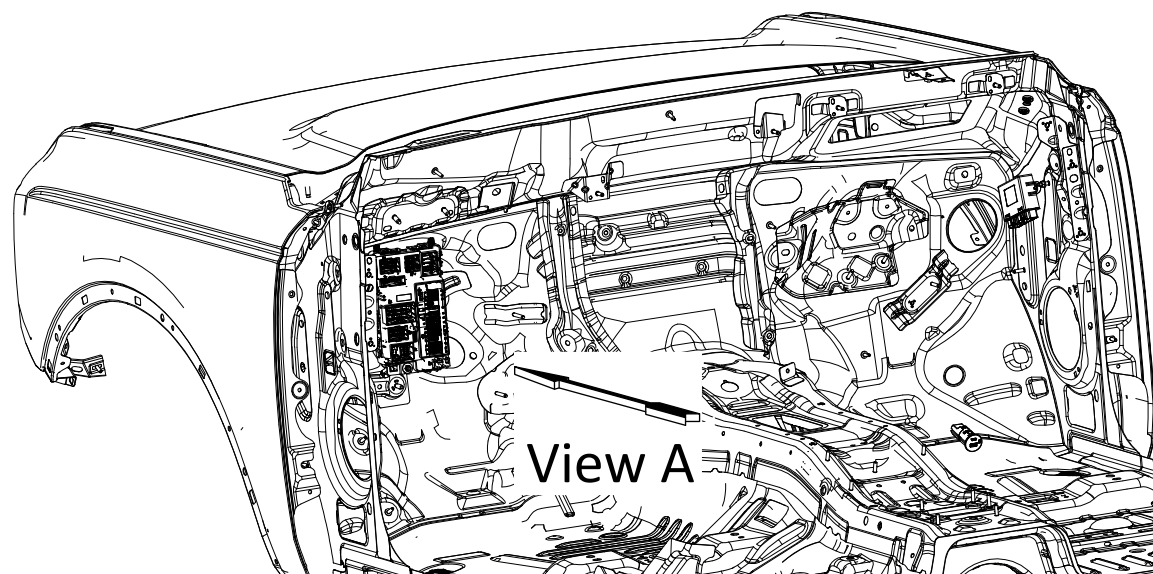
BRONCO CHMSL CIRCUIT

When Equipment is mounted that blocks the factory CHMSL, An auxiliary CHMSL must be fitted.

Circuit Type	Max Current (1) (3)	Factory CHMSL Load (3)	Circuit Reserve Capacity with Factory CHMSL (2)
Non-PWM	1.70A	0.20A	1.50A

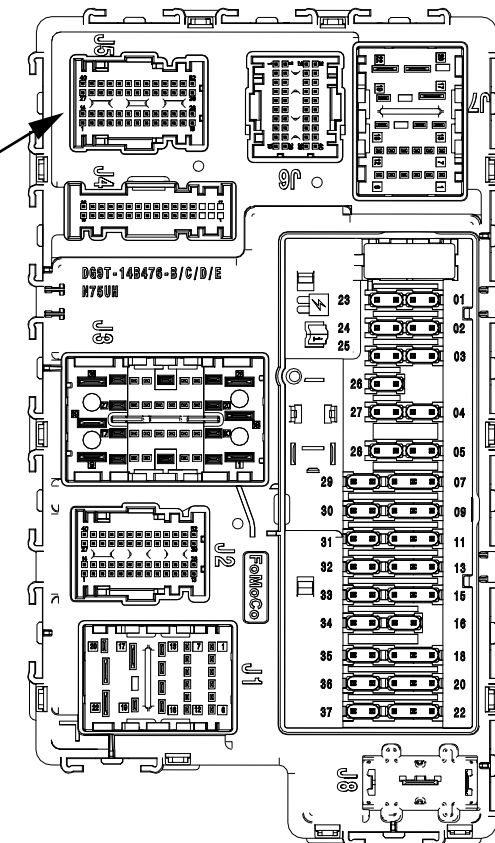
Notes:

- (1) - The Maximum current load for the circuit must not be exceeded
- (2) - If auxiliary CHMSL exceeds the reserve capacity, the factory CHMSL must be disconnected.
- (3) - Continuous at 12V

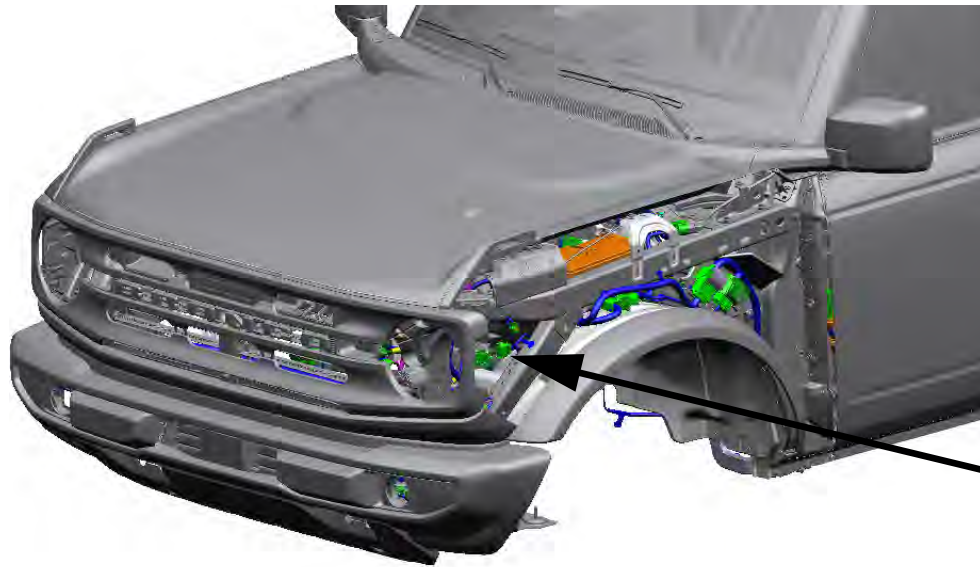


View A

CHMSL CIRCUIT
BCM (LH UNDER DASH)
CONNECTOR 5, PIN 13
WIRE COLOR : YE/GY



VIEW A



WARNING:

Head and Tail Lamp circuits must not be modified or reconfigured in any way when using the factory supplied lamps. If using after market Head or Tail Lamps, or if circuits are modified or reconfigured, the vehicle alterer assumes all responsibility for vehicle compliance to lighting related regulations.

Head Lamp Connector

Head Lamp Pin Out Mating Connector: 10 way Male - Molex 33482-1601				
Function (4)	Pin #	Wire Color	Circuit Type	Max Current (2)
Low Beam	1	RH: BU / GN LH: BN / BU	Non-PWM	4.2 A
Turn	2	RH: YE/ VT LH: BU/ GN	Non-PWM	2.2 A
Turn Lamp Outage	4	RH: BU/ WT LH: YE/ GN	N/A	N/A
Lin Network	5	YE/ VT	Network	N/A
Daytime Running Lights	7	RH: VT / WT LH: GY / BU	Non-PWM	2.3 A
High Beam	8	RH: BU / GY LH: YE / VT	Non-PWM	20A Fused
Park	9	RH: BN / YE LH: GN / OG	Non-PWM	1.0 A
Ground	10	RH: BK / GY LH: BK / GN	N/A	N/A

Notes

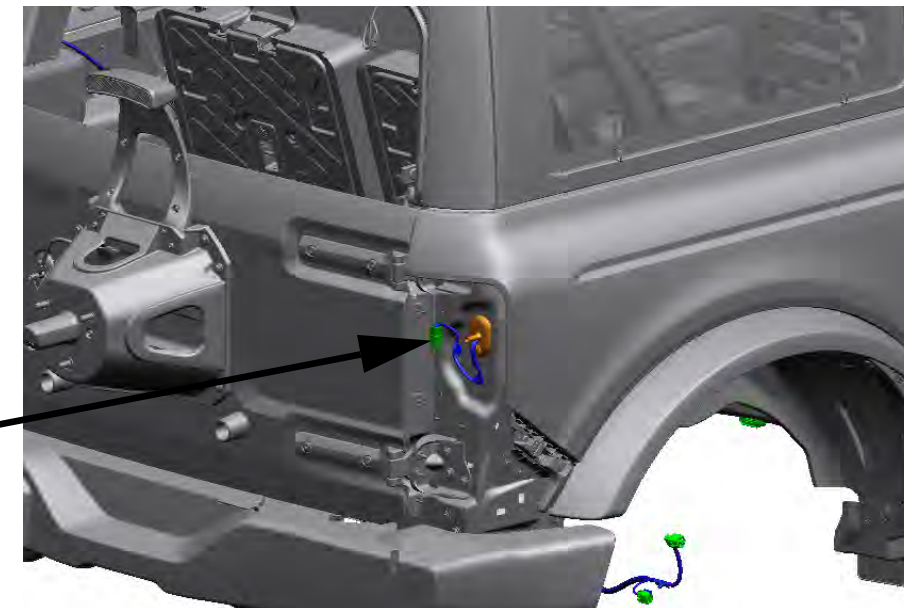
- (1) Combined Load for RH and LH Lamps
- (2) Continuous at 12V
- (3) Tail Lamp circuits are reconfigurable between separated and combined Stop and Turn*
- (4) Head Lamp circuit functions are reconfigurable in various ways*

*Requires a certified service technician with a Ford Diagnosis and Repair System (FDRS) tool.

Tail Lamp Pin Out HALOGEN Mating Connector 6 way Male - Molex 33482-3602				
Function	Pin #	Wire Color	Circuit Type	Max Current (2)
Reverse	4	GN / BN	PWM	3.9 A (1)
Park	2	BU/ GY	PWM	1.6 A (1)
Stop / Turn (3)	3	RH: GY / VT LH: WH / GN	PWM	1.9 A
Ground	1	BK / GY	N/A	6.8 A

Tail Lamp Pin Out LED Mating Connector 6 way Male - Molex 33482-3602				
Function	Pin #	Wire Color	Circuit Type (3)	Max Current (2)
Reverse	4	GN / BN	Non-PWM	3.9 A (1)
Park	2	BU/ GY	Non-PWM	1.6 A (1)
Stop (3)	3	RH: BU / BN LH: BU / GN	Non-PWM	1.9 A
Turn (3)	5	RH: GN / OG LH: GY / OG	Non-PWM	1.9 A
Turn Lamp Outage	6	RH: BU / OG LH: GN / BU	N/A	N/A
Ground	1	BK / GY	N/A	6.8 A

Tail Lamp Connector





Bronco Equipment Installation Guide

BRONCO

2021
MODEL YEAR

CHANGE CONTROL INDEX

LTRS	REVISIONS				
ORIGINATOR	CHECKER	ENGR APP	MATL APP		
CHM2D4-000000-BBLB-AA-01-FNA-ECN/1			INITIAL RELEASE		
RELEASED			20220721		
KVINOTH4	RWAGNE43	SLAZARZ	--		