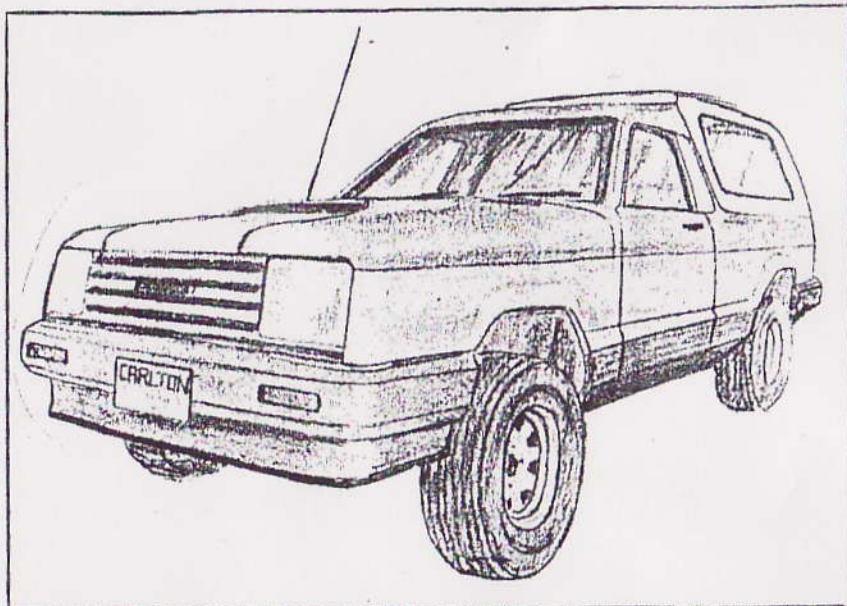


CARLTON AUTOMOTIVE

MIDLAND WORKS, FILEY AVENUE, ROYSTON, BARNSELY, SOUTH YORKSHIRE S714PZ.
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The Carlton Carrera is an exciting 3 door sports coupe based on the Ford Cortina Mk 3, 4 or 5 (with the option of using the Capri rear axle) or Jaguar XJ6/12 components.

The kit features a forward hinging bonnet assembly combined with both inner and outer wings. Two intake scoops, mounted symmetrically on the bonnet draw in fresh air for the car's internal ventilation system. An intricate moulding provides the underbonnet air ducting which is directly linked to the heater box. The main body shell is a one piece moulding providing a sealed bulkhead and rear floor section. A steel roll-over cage is moulded into the body shell and carries the seat belt mounting points. The doors are complete GRP mouldings mounted onto steel posts and housing Capri window winding systems on pillarless frames. The doors carry two steel tubes for support and side impact protection. The rear tailgate is again a one piece moulding housing a MGB G¹² rear window.

The body is aerodynamically efficient having subtle curves along with styled spoilers and side skirts to enable it to cut a clean path through the air. The chassis is of deep box section construction having additional "back-bone" type rails to provide a very high degree of torsional rigidity. The chassis extends the full length and width of the car giving superb front, rear and side impact protection.

The Carlton 'Commando' is an attractive three door hatch with instant appeal to the motorist who covets models such as Range Rover or Chevrolet Blazer. The 'Commando' is fantastic value for money and provides you with an efficient, stylish and satisfying vehicle at a price you can afford.

The 'Commando' self-assembly body, chassis kit is based exclusively on robust, ever popular Ford Cortina Mk 3 and 4. The superb design of the 'Commando' ensures that virtually all mechanical components from the Cortina are used. There are no hidden extra bits to find, or parts required from other vehicles.

The entire body shell and ancillary panels are precisely produced in the highest quality glass reinforced plastic - 'GRP'. The exceptional quality gives the 'Commando' considerable strength, plus high impact resistance qualities without any excess weight.

Carlton have produced a kit car that genuinely does stand up to critical examination. In addition the 'Commando' kit is quick and easy to build. For instance, the kit includes a superbly produced, precision welded, deep box section chassis. The chassis is fabricated by Carlton and pre-drilled to

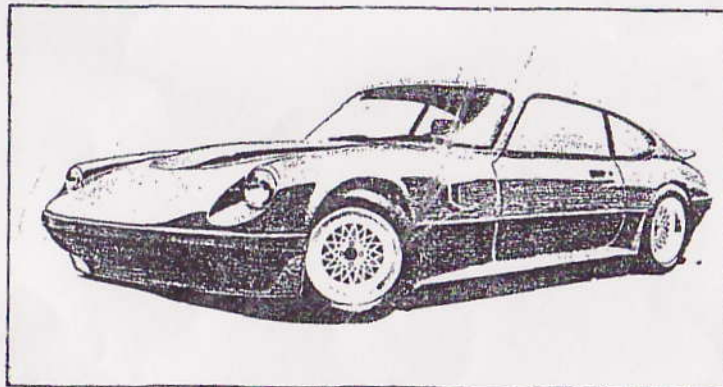
guarantee totally correct alignment of both front and rear axles. Front wings, front and rear bumpers, grille and door skins simply 'bolt-on'. All this adds up to a faster, accurate build-up which also means speedy repairs in the event of an accident.

The 'Commando' as the name implies, is a rugged reliable vehicle. Its high ground clearance means difficult tracks can be negotiated safely. Carlton have also retained the comfortable, proved driving position of the Cortina, but thanks to the additional ground clearance, you sit up higher, with a safer, more commanding view of the road.

Complete step-by-step instructions are provided with every 'Commando', but do remember the 'Commando' is made for you the enthusiast, by skilled engineers who are equally enthusiastic and with years of experience. If you want to telephone Carlton we are always pleased to offer advice and guidance on any aspect you may feel uncertain or unhappy about.

The 'Commando' is made to accept the normal OHV or OHC Cortina engines, the engine bay is cunningly designed to accommodate the smooth V6, or for those who really like to pack a punch — a V8!

Unlike conventional hatchbacks, the 'Commando' tailgate is divided in two horizontally, the top section hinges up, the lower section down, forming a flat platform level with the floor of the vehicle. This obviously is a boon when carrying extra long, or bulky loads.



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CHASSIS

Carerra

The sturdy and robust deep section chassis made from 10 gauge steel is constructed in an accurate 360 degree swivel jig, welded using one of the most modern MIG welding techniques by highly experienced precision engineers.

The Chassis has a great number of special features, all of which are purposely designed to give outstanding strength and superb rust proofing potential. One coat of black hammerite paint covers the chassis in order to keep it in good condition for collection or delivery. However, the chassis are available unpainted, to enable the individual to carry out their own rust proofing operation, if they so wish. The chassis is pre-drilled both front and rear axle, in the same alignment and geometric situation to that of the original donor vehicle. Where necessary the pre-drilled holes have either metal bushes or anti-crush sections welded into the chassis to prevent damage when the securing bolts for the mechanics of the vehicle are torqued down.

In some circumstances particular road holding characteristics of the Carrera may wish to be changed, this can easily be carried out by utilising the vast array of standard suspension components on the different models of the Cortina. A softer ride can be achieved by using the suspension from the 1300 and 1600 models whereas progression through to the 2.3 Estate Mk 5 derivatives provide a firmer ride with increased load carrying capacity.

Further helpful design features include:-

Flexible brake pipe support brackets both at front and rear of chasis. Exceptionally strong flanges are provided to anchor the body to the chassis by using 10 mm bolts, nuts and washers with the body unit.

The rear of the chassis has sealed kick-out protective rails which provide full all round protection within the chassis against impact for the Cortina or capri petrol tank.

Outriggers are to be found on each side of the chassis which provide additional floor and body support as well as a substantial anchor point for the roll-over cage (obtainable in other sections of the kit).

Optional, extra rear baby seat anchor supports are available on request at NO EXTRA CHARGE for the family which required extra mounting points.

In addition to all the pre-mentioned special features available as standard, detail has been paid to the construction of the chassis. All stress joints have been carefully considered for strength and additional supports are to be found at all critical points over and above that calculated, purely as an additional safety feature.

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Within the standard Cortina or Cortina/Capri based Carrera chassis the engine range is from the Cortina 1.3/1.6 through the full range upto and including the 3.0 V6. The chassis is also capable of taking other power units from a wide range of other vehicles up to the Rover V8 3.5 litre without modification.

As an example of combinations:-

2.0 litre Ford OHC engine and gear box/standard Granada propshaft/Cortina 2.0 or 1.6 rear axle. Front springs from 1.3 or 1.6 saloon, rear springs 2.0 estate.

3.5 Rover V8 auto engine and gearbox/standard Granada Mk 1 propshaft/Capri 3.0 rear axle. Front springs from 1.3 or 1.6 saloon.

3.0 litre V6 Ford engine and gear box/Granada Mk 1 propshaft/Cortina 2.0 litre rear axle. Front springs, 2.0 litre rear springs, 2.0 estate heavy duty.

Cortina/Capri/Jaguar Versions

Three special chassis options are available within the Carrera range which enables the standard 2+2 Carrera to be a realistic 4 seat version.

No. 1 Option:-

Cortina Front/Capri Rear

The Cortina/Capri option provides an all Ford based Carrera with the full 4 seat capacity. All the characteristics of the Cortina based Carrera chassis are retained in the construction of this version, coupled with a narrower rear transmission tunnel which enables 2 adult sized seats to be fitted and supplied as standard in the rear of the vehicle. A modified glass fibre floor pan giving additional headroom both front and rear is also supplied as standard.

No. 2 Option:-

Cortina Front/Jaguar Back

The Cortina/Jaguar option provides a mixture of Cortina components, enhanced by a Jaguar XJ rear axle. This combination provides the builder with full 4 seater capacity, whilst retaining a large proportion of standard Cortina components. All the standard characteristics of the Cortina based chassis are retained in the construction of this version, coupled with a narrower rear transmission tunnel which enables 2 adult sized seats to be fitted in the rear of the vehicle. A modified glass fibre floor pan giving additional headroom is also supplied.

No. 3 Option:-

All Jaguar

The all Jaguar option retains all the original lines of the Carrera, no external body modifications take place. However, internally a

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completely new chassis encompasses Jaguar XJ mechanics, i.e. front and rear axles with special provision for the two adult size rear seats, modified glass fibre floor pan and centre consul/transmission tunnel. The chassis is constructed in such a way that virtually any engine may be fitted from the Cortina 1.3 through the range of engines of many different cars up to and including the Jaguar XJ 12 5.3 litre.

FURTHER INFORMATION

If the chassis kit option is chosen, it is the policy of Carlton to align and secure the body to every chassis FREE OF CHARGE. Therefore, we request that if your body is to be collected and not delivered, please bring your rolling chassis back to the works, at your convenience, where our staff will willingly correctly align the body onto your chassis using specially prepared jigs. This operation not only assists you in your construction of your Carrera but also provides the perfect transportation bed.

Chassis Body 'Starter' Kit

This includes the previously mentioned deep section chassis along with the main GRP body.

The main section features:-

An integral rear floor following the contours of the chassis and seating in the areas necessary to accommodate required donor parts, i.e., handbrake, gear lever, etc. The floor itself is bonded onto the body section from beneath and inside the body, thus ensuring a water tight seal.

A double bulkhead, as in the Cortina, is designed to take all the original heater system, windscreen wiper assembly, air ducting and full dash board equipment. The double bulkhead again follows similar contours to that of the Cortina enabling fitment of equipment to be a simple conversion. An additional flange just below the window line is utilised to accept the original steel dash with all its refinements. The fitting of the original steel dash board and equipment give the Carrera a production car appearance to the inside of the finished vehicle.

A special fibre glass dash is available as an alternative to the standardised Ford dash board. The fibre glass dash is located and bonded into the body moulding and is designed such that the standard Cortina venting and ambient air ducting system may be used. The Carlton alternative dash utilises Ford Escort Mk III components although a considerable amount of the Cortina components can be used.

Marked into the GRP are indentations to identify the location of various mechanical and electrical components.

Box sections are built into the body to provide great rigidity around structural regions; such as, the rear light clusters, above the door apertures, roof anchor points, door striker plate positions and above the window line allowing the easy fitment of rear view mirror and sun visors.

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Further features of the main body section are that of rebated edges found in abundance to give a professional finish to the completed vehicle. This principle of strong flanges gives a good protection to susceptible impact zones throughout the vehicle.

Within the body of the vehicle is constructed and bonded into position a substantial roll cage. The roll cage is constructed from 40 x 40 3 mm square section steel forming a hoop behind the drivers head and a further two extended legs from the top of the roll cage down to the rear of the chassis. With the use of such a cage construction, once the body is finally located onto the chassis, the cage gives the chassis a space frame construction providing enormous strength and rigidity to the whole vehicle. From the roll cage are mounted all the necessary vertical seat belt mountings and the lower horizontal mountings are directly onto the chassis.

STANDARD KIT

This option includes the previously mentioned Chassis and Body 'Starter' Kits with all the refinements.

Included in the standard kit option are:-

Bonnet

A full one piece GRP bonnet incorporating a sophisticated fresh air ducting system, headlamps, driving lamp and indicator housings. Special inner wings and an integral locking system mounting frame forms a structural part of the bonnets design, which aids its strength and rigidity. Return edges feature heavily around the sides and lower valance again providing additional strength to the large one piece structure. The bonnet is of the forward hinging type of which the hinges are provided with the kit. The locking system for the bonnet utilises the rear door locks of the Cortina along with a modified bonnet release cable.

Tail Gate

A one piece tail gate mould with built in whale tail spoiler provides the styling expected from this type of vehicle. It is designed to take the rear heated screen from an MGB GT complete with rubber and trim. The whole tail gate is mounted using Talbot Sunbeam rear hinges and gasram system. The mounting points of the hinge system are clearly marked on the tail gate and the body (small sculptured recess). The locking system for the tail gate utilises the simple boot locking mechanics of the Cortina along with a standard bonnet release cable. Thus no external locks are used, resulting in a more secure car.

Doors

The Carrera doors are a full GRP construction with an integral steel frame structure and hinge mechanism. The doors incorporate a copy of the capri winding mechanism, therefore, the capri windows, lower frames and winding system may be used as standard to obtain a full working door expected of a high class vehicle. The door locking mechanism is the original Cortina or Capri door system including

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striker plate. The hinge system is formed from an elongated protection base within the doors extending externally to the hinge itself.

From the steel chassis our riggers, are mounted box sectioned steel door support pillars, onto which are bolted the mating plates of the hinge system. The whole door is held into position using a single 1 1/2" steel pin approximately 1 ft. in length, this allowing the door to be set into position using the adjustable hinge plates. Once the hinge plates are finally located then the doors are hung on the single hinge pin which allows the door to be fitted or removed in seconds without the risk of disturbing its orientation with the body.

OPTIONS

A rear valance is available either as a separate item or factory fitted. The valance is designed to give the more modern lower skirt under tray finish of the modern sports car.

Factory fitted doors, bonnet and tailgate gives you a quick start to the construction of your kit, and once the pannels have been fitted they may easily be removed and re-fitted at leisure, knowing that the pre-drilled holes and mountings will ensure a perfect fit every time.

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We at Carlton also offer a very wide range of Body Styling Kits to fit most cars and are now classed as the North's leading Boot Spoiler Manufacturer.

For further details contact Carlton for our full range of kits and spoilers.

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CARLTON AUTOMOTIVE policy is one of continuous improvement. Because of this we reserve the right to modify material, specifications, design and price without notice.

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COMMANDO

CHASSIS KIT

The sturdy and robust deep section chassis made from 10 gauge steel, is constructed on an accurate 360 degree swivel jig, welded using one of the most modern MIG welding techniques and by highly experienced precision engineers.

The chassis has a great number of special features, all of which are purposely designed to give outstanding strength and superb rust proofing potential. One coat of black hammerite paint covers the chassis in order to keep it in good condition for collection or delivery. However the chassis' are available either unpainted, in order that the individual can carry out their own rust proofing operation. The chassis is pre-drilled both front and rear axle, in the same alignment and geometric situation to that of the original donor vehicle. Where necessary the pre-drilled holes have either metal bushes or anti-crush sections welded into the chassis to prevent damage when securing bolts for the mechanics of the vehicle are torques down. The gearbox mounting brackets and centre bearing supports are to be drilled by the individual, but are designed to accept any configuration of standard cortina drive train, i.e., engine, gearbox and prop shaft. With the use of the original axle and front cross member from the Cortina, along with standard engine and gearbox means that original UNALTERED prop shaft and exhaust system can be easily fitted without having to incur expensive modifications to their lengths or balance (the balance of a prop shaft being extremely critical, and any adjustment in length must be carried out by a registered company, for your safety. It is illegal to lengthen or shorten your own prop shaft or allow an unregistered party to carry out the operation). On fitment of the Cortina rolling stock engine/gearbox etc., onto the Carlton Commando chassis your vehicle will retain the characteristics of the proven Cortina, enabling standardised mechanical parts to be used without mechanical modification. In some circumstances particular road holding characteristics of the Commando may wish to be changed, this can easily be carried out by utilising the vast array of standard suspension components on the different models of the Cortina. A softer ride can be achieved by using the suspension from the 1300 and 1600 models whereas progression through to the 2.3 state mk5 derivatives provide a firmer ride with increased load carrying capacity.

Further helpful design features include:-

Flexible brake pipe support brackets both at front and rear of chassis. Strong flanges are provided to anchor the body to the chassis. Mountings are fitted for the handbrake cable and centre seat belt mount.

The rear off-side of the chassis has a sealed kick-out protective rail, which provides full all round protection within the chassis against impact for the Cortina petrol tank.

Two outriggers are to be found mid-way on each side of the chassis which provide additional floor and body support as well as a substantial anchor point for the two piece roll over bar

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(obtainable in other sections of the kit).

Elongated spring hangers are fitted for the back axle location, specifically designed to enable the Commando to travel in off road condition without any risk of the rear coil springs becoming un-secured from around their location (spring hangers).

Tow bar brackets are welded to all chassis' as standard, regardless of whether they are required or not. This enables the fitting of two bars to take place at any time during your vehicles life without having to weld the tow bar or brackets to the chassis when required, causing inconvenience and possible danger due to the close proximity of the petrol tank.

Optional, extra rear seat belt anchor supports are available on request at NO EXTRA CHARGE for the family which requires extra mounting points.

In addition to all the pre-mentioned special features available as standard, detail has been paid to the construction of the chassis. All stress joints have been carefully considered for strength and additional supports are to be found at all critical points over and above that calculated, purely as an additional safety feature.

FURTHER INFORMATION

If the chassis kit option is chosen, it is the policy of Carlton to align and secure the body to every chassis FREE OF CHARGE. Therefore we request that if your body is to be collected and not delivered please bring your rolling chassis back to the works, at your convenience, where our staff will willingly correctly align the body onto your chassis using specially prepared jigs. This operation not only assists you in your construction of your Commando, but also provides the perfect transportation bed.

CHASSIS BODY 'STARTER' KIT

This includes the previously mentioned deep section chassis along with the main G.R.P. body.

The main body section features:-

An integral floor following the contours of the original Cortina floor pan in the areas necessary to accommodate required donor parts, i.e., handbrake, gear lever, seats etc. The floor itself is bonded onto the body section from both beneath and inside the body, this ensuring a water tight seal.

A double bulkhead, as in the Cortina, is designed to take all the original heater system, windscreen wiper assembly, air ducting and full dash board equipment. The double bulkhead again follows similar contours to that of the Cortina enabling fitment of equipment to be a simple conversion. An additional flange just below the window line is utilised to accept the original steel dash with all its refinements. The fitting of the original steel dash board and equipment give the commando a production car appearance.

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The engine bay incorporates substantial inner wings as part of the main body section. Marked in the GRP are indentations to identify the location of various mechanical and electrical components.

Box sections are built into the body to provide great rigidity around structural regions, such as, the rear light clusters, above the door apertures, roof anchor points, door striker plate positions and above the window line allowing the easy fitment of rear view mirror and sun visors. Further box sections with solid wooden inserts are to be found around the widow frames and exceptionally heavy construction in the door pillars. The door pillar supports utilise timber inserts which absorb resin during construction of the GRP body creating an exceptionally strong bond and support. Timber rather than steel inserts are used, as steel cannot absorb resin, thus leaving the certain condition that the steel will not adhere to the fibre-glass for any great length of time.

Further features of the main body section are that of rebated edges found in abundance to give a professional finish to the completed vehicle. Strong flanges are to be found where external panelling such as bumpers and wings are to be fastened. This principle of strong flanges gives a good protection to susceptible impact zones throughout the vehicle.

STANDARD KIT:

This option includes the previously mentioned Chassis and Body 'Starter' Kits with all the refinements, necessary panelling, glass etc. to complete the Commando conversion. Included in the standard kit option are:-

WINGS, Specifically designed with rebated edges for strength and finished appearance. The wings are a bolt on item designed to tear off the vehicle under impact conditions without damaging the inner wings. This allows ease of replacement if badly damaged, or simple re-positioning if minimal damage has occurred.

BONNET, One piece GRP structure, stiffened with wood incorporating bonnet hinge bolts and box sectioned areas for the fixing of the bonnet locking system.

FRONT BUMPER, A one piece aesthetic covering designed to add style and practicality to the Commando. It features, easy replacement, pre-marked insets for the indicators, pre-cut air flow aperture and rebated edges around the mounting areas and wheel arches.

GRILLE, A purely decorative item, moulded to the more modern car styling and providing the production car like finish to the front of the vehicle.

DOOR SKINS, bonded two piece mouldings providing a total replacement for the Cortina door skin suitable for both Mk 3 and Mk 4 doors. The replacement door skins are bolted internally in order that no external fastenings are used to reduce the quality finish of the vehicle.

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N.B. The door skins are to totally replace those on the Cortina doors and do not rely on any portion of the original metal skin. The main reason for this approach is to combat the rusting and depreciation of the covered door skin. That is, if a GRP panel, such as a door skin, is fastened over and original steel panel, the area between the GRP panel and steel creates a sweat area. Moisture can readily attack the metal in this ideal environment resulting in the onset of rust quicker than one ever imagines. The GRP panel would consequently detach itself from the vehicle having no secure anchor points left. In essence, placing fibre-glass panels over steel panelling accelerates the decay of the enclosed metal, eating away at the foundations of the anchor points necessary for such GRP panelling.

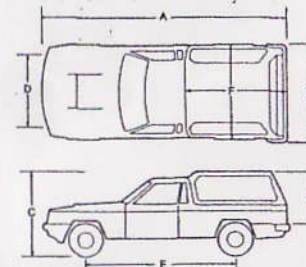
QUARTER BUMPERS, Following the ease of replacement theme and the effective tear off features, they enable maximum protection for the rear main body section.

TAILGATE, The box section tailgate featuring an integral rear bumper and deep box section construction. This panel is specifically designed to utilise the mechanical components found on or associated with the rear doors of the Cortina.

PETROL CAP, Provides a professional finish to the side of the vehicle using the modern approach of hiding away the often unsightly petrol cap.

R.V. LOWER GLASS PANEL, A GRP finishing panel secured to the bottom of the toughened tailgate glass enabling numerous effective locking mechanism to be used and being GRP it provides an adequate ground for the mounting of rear window wiper mechanisms.

SIDE WINDOW AND REAR GLASS, made from 4mm and 5 mm toughened glass respectively, again the glass follows in our tradition of quality (No perspex). The necessary seals for the side windows are to be found in the kit complete with either black or chrome inserts. The seals for the glass are those from the back doors of the donor vehicle. As the hinges for the tailgate are of a specific design these are incorporated within the kit. The rear glass hatch is pre-drilled to accept all the location and mounting points necessary to complete the Commando to the highest standards.



DIMENSIONS:

- A Length: 14'6" #
- B Width: 68"
- C Height: 68"
- D Track (typical): 57 1/2"
- E Wheelbase: 101" #
- F Load Platform:
 - # 67" (long) x 46" (wheelarches) x 62" (sides) x 41" (height) (RV)
 - 35" length from rear seat.
- G Tailgate Aperture: 51" (width) x 36" (height)

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