

# DOCUMENT FOR INCOMPLETE VEHICLE APPLICABLE TO THE 2016 MODEL YEAR FULL SIZE VAN (G-VAN)

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## **DO NOT REMOVE**

THIS DOCUMENT MUST REMAIN WITH THIS VEHICLE  
UNTIL IT IS CERTIFIED AS A COMPLETED VEHICLE

**PLACE  
LABEL  
HERE**

This document is furnished as required by the Canada Motor Vehicle Safety Act and United States (U.S.) Federal Motor Vehicle Safety Regulations (FMVSR) to aid intermediate and final stage manufacturers in their determination of conformity of the completed vehicle with applicable Canada Motor Vehicle Safety Standards (CMVSS) and U.S. Federal Motor Vehicle Safety Standards (FMVSS). Also included are instructions which must be followed in order to assure that Environmental Protection Agency (EPA) and California emission certification requirements and U.S. National Highway Traffic Safety Administration (NHTSA) and Environmental Protection Agency (EPA) Fuel Economy Regulations are met.

This document is not a substitute for knowledge and understanding of the requirements of the Canada Motor Vehicle Safety Act, Federal Motor Vehicle Safety Regulations (FMVSR), or applicable Canada Motor Vehicle Safety Standards (CMVSS) and Federal Motor Vehicle Safety Standards (FMVSS). Intermediate and final stage manufacturers should be familiar with the Regulations and Standards referred to above to be aware of their specific responsibilities as they relate to the final destination and sale of each incomplete vehicle.

Any intermediate or final stage manufacturer making material alterations to this incomplete vehicle during the process of manufacturing the complete vehicle should be constantly vigilant to recognize all the effects, either direct or indirect, on other components, assemblies or systems caused by any alteration. No alteration should be made to the incomplete vehicle that either directly or indirectly results in any component, assembly or system being in nonconformance with any applicable Canada Motor Vehicle Safety Standard or Federal Motor Vehicle Safety Standard or Emission Regulation.

The statements contained in this Incomplete Vehicle Document are accurate as of the date of manufacture of the Incomplete Vehicle and can be relied on by any intermediate and/or final stage manufacturer as a basis for certification.

## INTRODUCTION

This document contains information relative to conformance of this incomplete vehicle with the following:

**Part I - FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND CANADA MOTOR VEHICLE SAFETY STANDARDS**

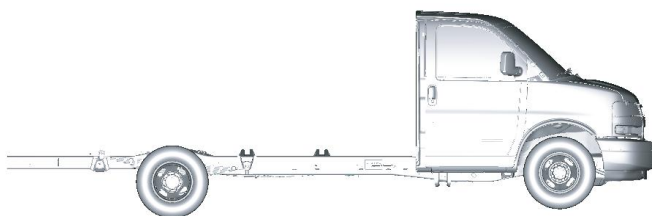
**Part II - U.S. ENVIRONMENTAL PROTECTION AGENCY, STATE OF CALIFORNIA, AND CANADIAN EMISSION REQUIREMENTS**

### PART I

For the G Cutaway Van, refer to Part I, Chart A that follows. This section contains a list of Canada Motor Vehicle Safety Standards (CMVSS), and Federal Motor Vehicle Safety Standards (FMVSS), followed by a section entitled "Statements Regarding Canada Motor Vehicle Safety Standards (CMVSS), and Federal Motor Vehicle Safety Standards (FMVSS)". In the latter section, an appropriate statement of applicability is made for each standard, and by vehicle type, as it relates to the incomplete vehicle.

#### **GMT610 (G-Van) Cutaway**

**TYPE: Bus, School Bus, Multifunction School Activity Bus (MFSAB)<sup>1</sup>, Multipurpose Passenger Vehicle, Motor Home, Ambulance<sup>2</sup>, Truck**

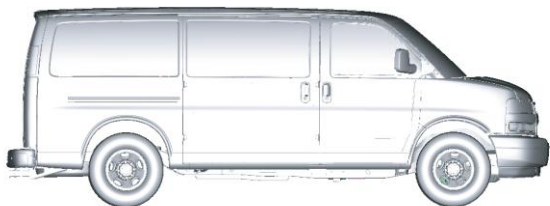


G-Vans, and G-Cutaway Vans that are built with specific Regular Production Option (RPO) or Special Equipment Option (SEO), may require additional statements of applicability. If required, the additional statements will be found under each affected CMVSS and/or FMVSS Standard.

#### **GMT610 (G-Van)**

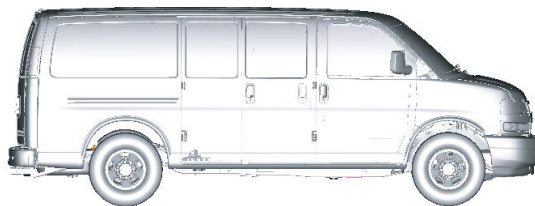
##### **Cargo Van**

**TYPE: Bus, Motor Home, Truck, Ambulance<sup>2</sup>, Multipurpose Passenger Vehicle**



##### **Passenger Van**

**TYPE: Bus, Motor Home, Truck, Multipurpose Passenger Vehicle**



1. Type MFSAB should be completed from a Cutaway model with School Bus Option Package (&B3D).
2. Ambulance is a Canada Type ONLY.

The identifiers TYPE 1, TYPE 2 or TYPE 3 prefix the statements (of applicability) regarding Canada Motor Vehicle Safety Standards (CMVSS), and Federal Motor Vehicle Safety Standards (FMVSS). "Examples" of these statements follow:

**TYPE 1** A statement that the vehicle when completed will conform to the standard if no alterations are made in identified components of the incomplete vehicle. **EXAMPLE:** This vehicle when complete will conform to CMVSS 104 and FMVSS No. 104, Windshield Wiping and Washing Systems, if no alterations are made in the windshield wiper components.

**TYPE 2** A statement of specific conditions of final manufacture under which the manufacturer specifies that the completed vehicle will conform to the standard. **EXAMPLE:** This vehicle when completed will conform to CMVSS 121 and FMVSS 121, Air Brake Systems, if it does not exceed any of the gross axle weight ratings, if the center of gravity at GVWR is not higher than ## feet above the ground, and if no alterations are made to any brake system component.

**TYPE 3** A statement that conformity with the standard cannot be determined based upon the components supplied on the incomplete vehicle, and that the incomplete vehicle manufacturer makes no representation to conformity with the standard.

In accordance with the requirements of Canada Motor Vehicle Safety Regulations, and Federal Motor Vehicle Safety Regulations Part 568.4, the following information is included on the label affixed to the front cover of this document:

- the name of the incomplete vehicle manufacturer;
- the month and year the incomplete vehicle manufacturer performed its last manufacturing operation on the incomplete vehicle;
- the vehicle identification number (VIN);
- the Gross Vehicle Weight Rating (GVWR) expressed in kg (lb), intended for the vehicle when it is a completed vehicle;
- the Gross Axle Weight Rating (GAWR) expressed in kg (lb), intended for each axle of the vehicle when it is a completed vehicle, listed in order from front to rear.

In addition, the final stage manufacturer is responsible under Canada Motor Vehicle Safety Regulations, and Federal Motor Vehicle Safety Regulations and Part 567.5, to place the GVWR and the GAWR of each axle, on the Final Vehicle Certification Label. Required on label is the "Gross Vehicle Weight Rating" or "GVWR" followed by the appropriate value in kilograms and (pounds), which shall not be less than the sum of the unloaded vehicle weight, rated cargo load, and 68 kg (150 lb) times the number of the vehicle's designated seating positions, if known. However, for school buses the minimum occupant weight allowance shall be 54.4 kg (120 lb) per passenger and 68 kg (150 lb) for the driver.

Unloaded Vehicle Weight means the weight of a vehicle with maximum capacity of all fluids necessary for operation of the vehicle, but without cargo or occupants.

During the completion of this vehicle, GVWR and GAWR may be affected in various ways, including but not limited to the following:

- The installation of a body or equipment that exceeds the rated capacities of the Incomplete Vehicle.
- The addition of designated seating positions that exceed the rated capacities of the Incomplete Vehicle.
- Alterations or substitution of any components such as axles, springs, tires, wheels, frames, steering and brake systems that may affect the rated capacities of the Incomplete Vehicle.

On page 2 before each vehicle illustration and after the word TYPE, is a list of types of vehicles into which the incomplete vehicle is designed to be manufactured. **If supplemental technical information is required to support this document, go to the GM Upfitter Integration website located at [www.gmupfitter.com](http://www.gmupfitter.com)**

## PART I – CHART A

LIST OF CANADA MOTOR VEHICLE SAFETY STANDARDS (CMVSS) AND FEDERAL MOTOR VEHICLE SAFETY STANDARDS (FMVSS), APPLICABLE TO THE FULL SIZE VAN (G-VAN) – G/H CARGO, PASSENGER OR CUTAWAY VANS

**SEE STATEMENTS REGARDING CMVSS AND FMVSS ON PAGES THAT FOLLOW**

CMVSS NO.	FMVSS NO.	TITLE	Cargo Van	Passenger Van	Cutaway Van
1106	-	Exterior noise	1	1	1
ICES-002	-	Canada interference causing equipment standard	1	1	1
101	101	Controls and displays	1	1	1
102	102	Transmission shift position sequence, starter interlock, and transmission braking effect	2,3	2,3	2,3
103	103	Windshield defrosting and defogging systems	1	1	1
104	104	Windshield wiping and washing systems	1	1	1
105	105	Hydraulic and electric brake systems	2	2	2
106	106	Brake hoses, hydraulic, air and vacuum	1	1	1
108	-	Daytime running lamps	1	1	1
108	108	Lamps, reflective devices and associated equipment	1	1	1,3
110	110	Tire selection and rims for motor vehicles with a GVWR of 4536 kg (10,000 lb) or less	2	2	2
111	111	Rearview mirrors	1,3	1,3	1,3
113	113	Hood latch system	1	1	1
114	114	Theft protection and rollaway prevention	1	1	1
115	-	Vehicle Identification Number	1	1	1
116	116	Motor vehicle brake fluids	1	1	1
118	118	Power operated window, partition and roof panel systems	1	1	1
120	120	Tire selection and rims for motor vehicles with a GVWR of more than 4,536 (10,000 lb)	2	2	2
124	124	Accelerator control systems	1,3	1,3	1,3
-	125	Warning devices designed to be carried in motor vehicles	1	1	1
126	126	Electronic stability control systems	2	2	2
131	131	School bus pedestrian safety devices	3	3	3
-	138	Tire pressure monitoring systems	2	2	2
201	201	Occupant protection in interior impact	1,3	1,3	1,3
202	202A	Head restraints	1,3	1,3	1,3
203	203	Impact protection for the driver from the steering control system	1,3	1,3	1,3
204	204	Steering control rearward displacement	2,3	2,3	2,3
205	205	Glazing materials	1	1	1
206	206	Door locks and door retention components	1, 3	1, 3	1, 3
207	207	Seating systems	1,3	1,3	1,3

CMVSS NO.	FMVSS NO.	TITLE	Cargo Van	Passenger Van	Cutaway Van
208	208	Occupant crash protection	2,3	2,3	2,3
209	209	Seat belt assemblies	1,3	1,3	1,3
210	210	Seat belt assembly anchorages	1,3	1,3	1,3
210.1	-	Tether anchorages for restraint systems	1,3	1,3	1,3
210.2	-	Lower universal anchorage systems for restraint systems and booster cushions	1,3	1,3	1,3
212	212	Windshield mounting	2	2	3
213.4	213	Built-in child restraint systems and built in booster cushions	3	3	3
214	214	Side impact protection	1	1	3
217	217	Bus emergency exits and window retention and release	3	1	3
219	219	Windshield zone intrusion	2	2	3
220	220	School bus rollover protection	3	3	3
221	221	School bus body joint strength	3	3	3
222	222	School bus passenger seating and crash protection	3	3	3
-	225	Child restraint anchorage systems	1,3	1,3	1,3
301	301	Fuel system integrity	2	2	2
301.1	-	LPG fuel system integrity	2	2	2
302	302	Flammability of interior materials	1,3	1,3	1,3
301.2	303	CNG fuel system integrity	3	3	3
-	304	Compressed natural gas fuel containers	3	3	3
-	403	Platform lift systems	3	3	3
-	404	Platform lift installations in motor vehicles	3	3	3

- TYPE 1, 2 or 3 numbers to the right hand side of the table above designate the appropriate paragraph in the CMVSS or FMVSS standards that follow.

## Statements Regarding Canada Motor Vehicle Safety Standards (CMVSS), and Federal Motor Vehicle Safety Standards (FMVSS)

### CMVSS 1106 – EXTERIOR NOISE

#### Applies to all types of Incomplete Vehicles Contained in this Document

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

- A. This incomplete vehicle, when completed, will conform to the above standards providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below (if equipped):

Air Induction System (tuning elements)  
 Alternator  
 Axles/halfshafts/propshaft  
 Components for AWD system (axle, propshaft, PTU)  
 Engine assembly  
 Exhaust System  
 Exterior noise generating devices

Intake system (Air Induction System (i.e. Air filter, Mass Air flow (MAF) sensor, ducts))  
 Power steering pump  
 Powertrain control and logic  
 Powertrain cooling fan and motor assemblies  
 Radiator/condenser assembly to body seals  
 Tires (including correct tire pressure)

Exterior rearview mirror assemblies  
Front of dash sound deadening material  
Hood assembly including sound deadening material  
and seals

Transmission/Transaxle assembly  
Underbody shields including air deflector

- B. Final compliance with CMVSS 1106 is the responsibility of the final stage manufacturer for any modifications, added material, components, or systems.

**INTERFERENCE CAUSING EQUIPMENT STANDARD (CANADA ONLY) – ICES-002**  
**Applies to all types of Incomplete Vehicles Contained in this Document**

**TYPE 1 The following statement is applicable to all types of incomplete vehicles with spark ignition engines contained in this document (unless otherwise noted on the cover).**

This incomplete vehicle, when completed, will conform to the performance requirements of the above standards provided no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Ignition coil(s)  
Ignition wires & plugs

Spark plug wires  
PCM/ECM/TCM/EBCM

**The final stage manufacturer must provide a statement of compliance on the Final Stage Manufacturer's Compliance Label with the following bilingual information in order to comply with Industry Canada's Interference Causing Equipment Standard ICES/NMB-002:**

ICES/NMB-002

**FMVSS 101 CONTROLS AND DISPLAYS All Cargo, Cutaway and Passenger Van Models**  
**CMVSS 101 CONTROLS AND DISPLAYS Cargo, Cutaway and Passenger Van**  
**with a GVWR less than 4536 kg (10,000 lb)**

**TYPE 1 The following statement is applicable to all types of Incomplete Vehicles contained in this document as noted above (unless otherwise noted on the cover).**

This incomplete vehicle, when completed, will conform to CMVSS 101 and FMVSS 101 providing no alterations are made which affect the size, location, identification or illumination of the controls and displays or the location, travel and type of driver's seat, as manufactured by General Motors. If the driver's seat is installed by the intermediate or final stage manufacturer, the "H" point must be located as shown in the **GM Upfitter Integration website located at [www.gmupfitter.com](http://www.gmupfitter.com)**

The following controls must be operable, and the following displays for the following functions and malfunctions shall be fitted in such a manner that they are identifiable, by the driver while the driver is seated in the driver's designated seating position with the driver's seat belt fastened around the driver in accordance with the manufacturer's instructions:

Hand operated controls (if equipped):

Automatic vehicle speed (cruise control)  
Clearance lamps (switch)  
Clutch  
Driver's sun visor  
Engine start  
Engine stop  
Electronic stability control system "off"  
Hand throttle  
Hazard warning signal  
Hazard warning switch  
Headlamps  
Headlamp upper or lower beam switch

Ignition (switch)  
Illumination intensity  
Manual choke  
Master lighting switch  
Park brake (pedal or lever)  
Position, side marker, end-outline marker,  
identification or clearance lamps  
Rear window defogging and defrosting systems  
Service brake (pedal or lever)  
Steering wheel  
Taillamps  
Transaxle/transmission shifter (except transfer case)

Heating and air conditioning fan  
Heating and air conditioning system  
Horn  
Identification lamps (switch)

Turn signal  
Windshield defogging and defrosting systems  
Windshield washer (washing system)  
Windshield wiper (wiping system)

Foot operated controls (if equipped):

Accelerator  
Clutch  
Headlamp upper or lower beam switch  
Highbeam  
Park brake (pedal or lever)

Service brake (pedal or lever)  
Taillamp  
Windshield washer (washing system)  
Windshield wiper (wiping system)

Displays (if equipped):

Air brake low pressure  
Antilock brake system malfunction  
Battery charging condition  
Brake lining wear-out condition  
Brake system malfunction (Canada - ISO symbol)  
Brake Pressure (system loss)  
Electrical charge  
Electronic stability control system "off"  
Electronic stability control system malfunction  
Engine coolant temperature  
Engine oil pressure  
Fuel level  
Gross loss of brake pressure condition  
Hazard warning signal

Headlamp upper beam  
Highbeam  
Low brake air pressure telltale  
Low brake fluid condition  
Low tire pressure indication (see MVSS 138)  
Odometer (Canada must be metric)  
Parking brake applied  
Regenerative brake system malfunction  
Seat belt (unfastened telltale)  
Speedometer (Canada must be metric)  
Tire pressure monitoring system malfunction  
Transmission control position  
Turn signal(s)  
Variable brake proportioning system malfunction

If the intermediate or final stage manufacturer installs any of the above controls and displays, they must also meet the requirements of this standard.

## **CMVSS 101 – CONTROLS AND DISPLAYS**

### **Cutaway Van with a GVWR greater than or equal to 4536 kg (10,000 lb)**

**TYPE 1** The following statement is applicable to Cutaway Van with a GVWR greater than or equal to 4536 kg (10,000 lb) contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to the controls portion of CMVSS 101 providing no alterations are made which affect the size, location, identification or illumination of the controls or the location, travel and type of seat, as manufactured by General Motors. If the seat is installed by the intermediate or final stage manufacturer, the visibility and operation of the controls must meet the requirements of paragraph S5 of the standard. The following controls must be operable and visible to a lap and shoulder belted driver:

Hand operated controls (if equipped):

Automatic vehicle speed system  
Clearance lamps (switch)  
Clutch  
Driver's sun visor  
Engine start  
Engine stop  
Hand throttle  
Hazard warning signal  
Hazard warning switch  
Headlamp  
Headlamp upper or lower beam switch  
Heating and air conditioning fan  
Highbeam  
Horn

Ignition (switch)  
Illumination intensity  
Manual choke  
Master lighting switch  
Park brake (pedal or lever)  
Rear window defrosting and defogging systems  
Service brake (pedal or lever)  
Steering wheel  
Taillamp  
Transaxle/transmission shifter (except transfer case)  
Turn signal  
Windshield defrosting and defogging systems  
Windshield washer (washing system)  
Windshield wiper (wiping system)

Identification lamps (switch)

Foot operated controls (if equipped):

Accelerator	Service brake (pedal or lever)
Clutch	Taillamp
Headlamp upper or lower beam switch	Windshield washer (washing system)
Highbeam	Windshield wiper (wiping system)
Park brake (pedal or lever)	

If the intermediate or final stage manufacturer installs any of the above controls, they must also meet the requirements of this standard.

### **CMVSS 102 and FMVSS 102 – TRANSMISSION SHIFT POSITION SEQUENCE, STARTER INTERLOCK, AND TRANSMISSION BRAKING EFFECT** **Refer to Vehicle Types, and Applicable “Mobility” Statements that follow**

**TYPE 2** The following statement is applicable to all incomplete vehicle types contained in this document and not equipped with a Mobility Package (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 102 and FMVSS 102 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below (if equipped):

Transaxle/Transmission (A/T) control and identification system, including but not limited to:

A/T floor shift mechanism	Automatic transmission/transaxle assembly (A/T)
A/T gear ratios and final drive ratio	Brake - A/T interlock controls
A/T gear shift sequence and control logic (electrical or mechanical)	Engine starter interlock controls
A/T neutral safety switch assembly and wire	M/T clutch-starter interlock system
A/T position indicator linkage and display	Transmission/transaxle shift position pattern (knob, plate or label)
A/T steering column assembly	Vehicle wiring harnesses

The items listed below, if provided by General Motors with this vehicle, must be installed as specified:

Body wiring harness (to complete circuitry to rear lamps). Instructions are included.

**TYPE 3** The following statement is applicable to all incomplete vehicle types contained in this document and equipped with a Mobility Package (unless otherwise noted on the cover).

Conformity with CMVSS 102 and FMVSS 102 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

### **CMVSS 103 and FMVSS 103 – WINDSHIELD DEFROSTING AND DEFOGGING SYSTEMS** **Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 103 and FMVSS 103 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below (if equipped):

Windshield defrosting and defogging systems, including but not limited to:

Chassis and instrument panel wiring harness assembly	Engine wiring harness
	Heater and air conditioning wiring harness



Defroster air distributor assembly (manifold)	Heater and defroster assembly (including motor and blower)
Defroster air duct assembly	Heater and defroster control (electrical, mechanical, vacuum)
Defroster air hoses (distributor to nozzle)	Heater and radiator hoses/hose assemblies
Defroster air to windshield outlet assembly (nozzle) (it affects blower speed)	Heater blower motor speed control
Defroster outlet to heater assembly adapter	Side window defroster ducts
Engine control, software and calibration	Vacuum control hoses and electric actuators
Engine coolant pump	Windshield assembly
Engine water outlet thermostat assembly	

**CMVSS 104 and FMVSS 104 - WINDSHIELD WIPING AND WASHING SYSTEMS**  
**Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 104 and FMVSS 104 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below (if equipped):

Windshield wiping and washing systems, including but not limited to:

Vehicle wiring harness and electrical controls	Windshield washing system hoses
Washer reservoir cap	Windshield wiper arm assembly
Water reservoir filler assembly	Windshield wiper blade assembly
Windshield assembly	Windshield wiper linkage assembly
Windshield module attachments	Windshield wiper/washer control
Windshield washer fluid reservoir	Windshield wiper/washer motor/pump assembly
Windshield washer nozzle	

**CMVSS 105 and FMVSS 105 – HYDRAULIC AND ELECTRIC BRAKE SYSTEMS**  
**Applies to all types of Incomplete Vehicles Contained in this Document**  
**including option B3D – Equipment School Bus at any GVWR.**

**TYPE 2** The following statement is applicable to all types of incomplete vehicles contained in this document including option B3D – Equipment School Bus at any GVWR (unless otherwise noted on the cover).

This incomplete vehicle when completed will conform to CMVSS 105 and FMVSS 105 provided it is completed in accordance with the following specific conditions by the (intermediate and) final stage manufacturer:

A. Providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below (if equipped):

Anti Lock Brake System	Hydraulic brake lines, fittings and routings
Brake assemblies and components (service/parking) (power boosters, master cylinder, wheel cylinder, calipers, wheel speed sensor, wheel speed sensor wiring, brake lining, etc.)	Master cylinder warning statement
Brake pedal, brake switch, parking brake hand lever or park brake switch and related mechanical components	Parking brake actuator and related mechanical components
Brake system electrical controls and logic	Power steering or vacuum lines and routing
Gauges and warning devices, and statements	Power steering or vacuum pump
Hydraulic brake fluid and reservoirs - Hydraulic brake valves and components	Shocks, springs and other suspension components
	Tires and Wheels
	Vacuum brake lines, fittings and routings
	Vehicle wiring harnesses
	Wheelbases

B. GVWR, GAWR front and rear weight ratings as listed on the Incomplete Vehicle Label affixed to the front cover of this document must not be exceeded.

- C. The center of gravity of the total vehicle falls within the areas referenced on the “ALLOWABLE CENTER OF GRAVITY CHART” that follows. Instructions for determining the allowable center of gravity variation are listed below:

These charts detail the envelope of allowable center of gravity variation for completed vehicles. This is significant for the lightly loaded portion of FMVSS 105, which is defined as curb plus 181.4 kg (400 lb) distributed in the driver-passenger area of the vehicle for vehicles with GVWR of 4536 kg (10,000 lb) or less or as curb plus 226.8 kg (500 lb) distributed in the driver-passenger area of the vehicle for vehicles with GVWR greater than 4536 kg (10,000 lb).

The lightly loaded center of gravity of complete vehicles needs to be restricted so it will meet FMVSS 105 stopping distances. The laden center of gravity does not need to be specified as it is controlled within the CMVSS 105 and FMVSS 105 test procedure by specific instructions as to how ballast is to be placed (while height is not controlled, it is assumed that for test purposes it would be reasonable).

For upfitter use, the center of gravity location can be approximated by the following formula:

$$D = \frac{[Wrc + Wrb + [(Hp)(Wp)/WB]] WB}{Wt}$$

$$h = \frac{[h1Wc + h2Wb + (h3)(Wp)]}{Wt}$$

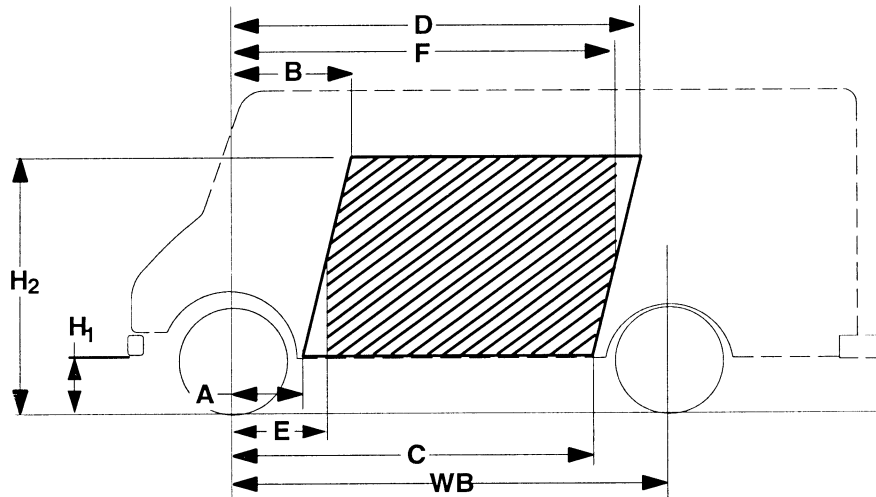
- d = horizontal distance from front wheels to completed vehicle center of gravity mm (in)  
h = vertical distance from ground to completed vehicle center of gravity mm (in)  
Wrc = rear component of Chassis weight kg (lb)  
Wrb = rear component of body weight kg (lb)  
WB = vehicle wheelbase mm (in)  
Wt = total weight of chassis and body kg (lb) plus 181.4 kg (400 lb)  
h1 = center of gravity height from ground of the Bare Chassis = 711 mm (28 in)  
Wc = total weight of Chassis kg (lb)  
h2 = center of gravity height of body from ground mm (in)  
Wb = total weight of body kg (lb)  
Wp = 181.4 kg (400 lb) Amount from lightly loaded definition that is evenly distributed in driver-passenger area of vehicle for vehicles with GVWR of 4536 kg (10,000 lb) or less.  
Wp = 226.8 kg (500 lb) Amount from lightly loaded definition that is evenly distributed in driver-passenger area of vehicle for vehicles with GVWR greater than 4536 kg (10,000 lb).  
Hp = 1115 mm (43.9 in) Horizontal distance from front axle to center of gravity of 181.4 kg (400 lb) or 226.8 kg (500 lb) evenly distributed in driver-passenger area of vehicle.  
h3 = 1160 mm (45.7 in) Vertical center of gravity height of 181.4 kg (400 lb) evenly distributed in driver-passenger area for vehicles with GVWR of 4536 kg (10,000 lb) or less.  
h3 = 1160 mm (45.7 in) Vertical center of gravity height of 226.8 kg (500 lb) evenly distributed in driver-passenger area for vehicles with GVWR greater than 4536 kg (10,000 lb).

# CMVSS 105 and FMVSS 105 ALLOWABLE CENTER OF GRAVITY CHART

Model	GVWR kg (lbs)	Brake RPO	Wheel Base mm (inch)	SRW /DRW	Incomplete Vehicles							
					Coordinates of Allowable C/G Variation at CMVSS 105 / FMVSS 105 Unladen, Curb Weight + 181.4 kg (400 lb) or Curb Weight + 226.8 kg (500 lb) as defined by CMVSS 105 and FMVSS 105 mm (in)						Fwd C/G Limit mm (in)	Rwd C/G Limit mm (in)
					H1	H2	A	B	C	D	E	F
G23405	3901 (8,600)	JH6	3429 (135.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1142 (45.0)	1395 (54.9)	2457 (96.7)	2710 (106.7)	1234 (48.6)	2369 (93.3)
G23406	3901 (8,600)	JH6	3429 (135.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1142 (45.0)	1395 (54.9)	2457 (96.7)	2710 (106.7)	1234 (48.6)	2369 (93.3)
G23705	3901 (8,600)	JH6	3937 (155.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1298 (51.1)	1552 (61.1)	2808 (110.6)	3062 (120.6)	1417 (55.8)	2720 (107.1)
G33405	4354 (9,600)	JH6	3429 (135.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1142 (45.0)	1395 (54.9)	2457 (96.7)	2710 (106.7)	1234 (48.6)	2369 (93.3)
G33705	4354 (9,600)	JH6	3937 (155.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1298 (51.1)	1552 (61.1)	2808 (110.6)	3062 (120.6)	1417 (55.8)	2720 (107.1)
G33705	4491 (9,900)	JH6	3937 (155.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1298 (51.1)	1552 (61.1)	2808 (110.6)	3062 (120.6)	1417 (55.8)	2720 (107.1)
G33705	4502 (9,925)	JH6	3937 (155.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1298 (51.1)	1552 (61.1)	2808 (110.6)	3062 (120.6)	1417 (55.8)	2720 (107.1)
G33503	3901 (8,600)	JH6	3531 (139.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1173 (46.2)	1427 (56.2)	2527 (99.5)	2781 (109.5)	1271 (50.0)	2440 (96.1)
G33503	4354 (9,600)	JH6	3531 (139.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1173 (46.2)	1427 (56.2)	2527 (99.5)	2781 (109.5)	1271 (50.0)	2440 (96.1)
G33503	4491 (9,900)	JH6	3531 (139.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1173 (46.2)	1427 (56.2)	2527 (99.5)	2781 (109.5)	1271 (50.0)	2440 (96.1)
G33503	4559 (10,050)	JH9	3531 (139.0)	DRW	304.8 (12.0)	1219.2 (48.0)	978 (38.5)	1190 (46.9)	2694 (106.1)	2905 (114.4)	1271 (50.0)	2634 (103.7)
G33503	4581 (10,100)	JH6	3531 (139.0)	SRW	304.8 (12.0)	1219.2 (48.0)	978 (38.5)	1190 (46.9)	2694 (106.1)	2905 (114.4)	1271 (50.0)	2440 (96.1)
G33503	5579 (12,300)	JH9	3531 (139.0)	DRW	304.8 (12.0)	1219.2 (48.0)	978 (38.5)	1190 (46.9)	2694 (106.1)	2905 (114.4)	1271 (50.0)	2634 (103.7)
G33406	3992 (8,800)	JH6	3429 (135.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1142 (45.0)	1395 (54.9)	2457 (96.7)	2710 (106.7)	1234 (48.6)	2369 (93.3)
G33406	4354 (9,600)	JH6	3429 (135.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1142 (45.0)	1395 (54.9)	2457 (96.7)	2710 (106.7)	1234 (48.6)	2369 (93.3)
G33706	4354 (9,600)	JH6	3937 (155.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1298 (51.1)	1552 (61.1)	2808 (110.6)	3062 (120.6)	1417 (55.8)	2720 (107.1)
G33706	4491 (9,900)	JH6	3937 (155.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1298 (51.1)	1552 (61.1)	2808 (110.6)	3062 (120.6)	1417 (55.8)	2720 (107.1)
G33803	4491 (9,900)	JH6	4039 (159.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1330 (52.4)	1583 (62.3)	2879 (113.3)	3132 (123.3)	1454 (57.2)	2791 (109.9)

Model	GVWR kg (lbs)	Brake RPO	Wheel Base mm (inch)	SRW /DRW	Incomplete Vehicles							
					Coordinates of Allowable C/G Variation at CMVSS 105 / FMVSS 105 Unladen, Curb Weight + 181.4 kg (400 lb) or Curb Weight + 226.8 kg (500 lb) as defined by CMVSS 105 and FMVSS 105 mm (in)						Fwd C/G Limit mm (in)	Rwd C/G Limit mm (in)
					H1	H2	A	B	C	D	E	F
G33803	4559 (10,050)	JH9	4039 (159.0)	DRW	304.8 (12.0)	1219.2 (48.0)	1109 (43.7)	1320 (52.0)	3071 (120.9)	3283 (129.3)	1454 (57.2)	3013 (118.6)
G33803	4581 (10,100)	JH6	4039 (159.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1109 (43.7)	1320 (52.0)	3071 (120.9)	3283 (129.3)	1454 (57.2)	2791 (109.9)
G33803	5579 (12,300)	JH9	4039 (159.0)	DRW	304.8 (12.0)	1219.2 (48.0)	1109 (43.7)	1320 (52.0)	3071 (120.9)	3283 (129.3)	1454 (57.2)	3013 (118.6)
G33803	6341 (13,980)	JH9	4039 (159.0)	DRW	304.8 (12.0)	1219.2 (48.0)	1109 (43.7)	1320 (52.0)	3071 (120.9)	3283 (129.3)	1454 (57.2)	3013 (118.6)
G33803	6441 (14,200)	JH9	4039 (159.0)	DRW	304.8 (12.0)	1219.2 (48.0)	1109 (43.7)	1320 (52.0)	3071 (120.9)	3283 (129.3)	1454 (57.2)	3013 (118.6)
G33903	5579 (12,300)	JH9	4496 (177.0)	DRW	304.8 (12.0)	1219.2 (48.0)	1226 (48.3)	1438 (56.6)	3411 (134.3)	3622 (142.6)	1618 (63.7)	3354 (132.0)
G33903	6341 (13,980)	JH9	4496 (177.0)	DRW	304.8 (12.0)	1219.2 (48.0)	1226 (48.3)	1438 (56.6)	3411 (134.3)	3622 (142.6)	1618 (63.7)	3354 (132.0)
G33903	6441 (14,200)	JH9	4496 (177.0)	DRW	304.8 (12.0)	1219.2 (48.0)	1226 (48.3)	1438 (56.6)	3411 (134.3)	3622 (142.6)	1618 (63.7)	3354 (132.0)
G33503 &B3D	4354 (9,600)	JH6	3531 (139.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1173 (46.2)	1427 (56.2)	2527 (99.5)	2781 (109.5)	1271 (50.0)	2440 (96.1)
G33503 &B3D	4491 (9,900)	JH6	3531 (139.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1173 (46.2)	1427 (56.2)	2527 (99.5)	2781 (109.5)	1271 (50.0)	2440 (96.1)
G33503 &B3D	4559 (10,050)	JH9	3531 (139.0)	DRW	304.8 (12.0)	1219.2 (48.0)	978 (38.5)	1190 (46.9)	2694 (106.1)	2905 (114.4)	1271 (50.0)	2634 (103.7)
G33503 &B3D	4581 (10,100)	JH6	3531 (139.0)	SRW	304.8 (12.0)	1219.2 (48.0)	978 (38.5)	1190 (46.9)	2694 (106.1)	2905 (114.4)	1271 (50.0)	2440 (96.1)
G33503 &B3D	5579 (12,300)	JH9	3531 (139.0)	DRW	304.8 (12.0)	1219.2 (48.0)	978 (38.5)	1190 (46.9)	2694 (106.1)	2905 (114.4)	1271 (50.0)	2634 (103.7)
G33803 &B3D	4491 (9,900)	JH6	4039 (159.0)	SRW	304.8 (12.0)	1219.2 (48.0)	1330 (52.4)	1583 (62.3)	2879 (113.3)	3132 (123.3)	1454 (57.2)	2791 (109.9)
G33803 &B3D	4559 (10,050)	JH9	4039 (159.0)	DRW	304.8 (12.0)	1219.2 (48.0)	1109 (43.7)	1320 (52.0)	3071 (120.9)	3283 (129.3)	1454 (57.2)	3013 (118.6)
G33803 &B3D	5579 (12,300)	JH9	4039 (159.0)	DRW	304.8 (12.0)	1219.2 (48.0)	1109 (43.7)	1320 (52.0)	3071 (120.9)	3283 (129.3)	1454 (57.2)	3013 (118.6)
G33803 &B3D	6441 (14,200)	JH9	4039 (159.0)	DRW	304.8 (12.0)	1219.2 (48.0)	1109 (43.7)	1320 (52.0)	3071 (120.9)	3283 (129.3)	1454 (57.2)	3013 (118.6)

SRW = Single Rear Wheel, DRW = Dual Rear Wheel, C/G = Center of Gravity, B3D = School Bus Option



C/G of vehicle in CMVSS or FMVSS unladen condition [Curb + 181.4 kg. (400 lb) for vehicles less than or equal to 4536 kg (10,000 lbs) GVWR or Curb + 226.8 kg (500 lbs) for vehicles greater than 4536 kg (10,000 lbs) GVWR] must be inside shaded area – that is, the C/G must be within the trapezoid formed by the coordinates A, B, C, D, H1, & H2, plus the C/G must be to the rear of vertical line E and forward of vertical line F.

**CMVSS 106 and FMVSS 106 – BRAKE HOSES, HYDRAULIC, AIR AND VACUUM**  
**Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 106 and FMVSS 106 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

- Hydraulic, Air, and Vacuum Brake Hoses and assemblies
- Labeling requirements

**CMVSS 108 – DAYTIME RUNNING LAMPS**  
**Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed will conform to the Daytime Running Lamps (DRL) requirements of CMVSS 108 providing no alterations are made to the ignition switch, DRL system components or wiring, and any vehicle forward lighting as manufactured by General Motors.

**CMVSS 108 and FMVSS 108 – LAMPS, REFLECTIVE DEVICES AND ASSOCIATED EQUIPMENT**  
**Cargo and Passenger Van**

**TYPE 1** The following statement is applicable to Cargo and Passenger Van types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 108 and FMVSS 108 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

The lamp identification codes of the following listed devices cannot be modified or changed. If lamp requirements are modified or changed, the following devices may have to be replaced or reprogrammed:

BCM  
Hazard Flasher  
Hazard Warning Signal Operating Unit

Owner Manual Instructions  
Turn Signal Flasher  
Turn Signal Operating Unit

## **CMVSS 108 and FMVSS 108 – LAMPS, REFLECTIVE DEVICES AND ASSOCIATED EQUIPMENT** **Cutaway Van**

**TYPE 1** The following statement is applicable to the vehicle types listed below (unless otherwise noted on the cover):

- **Cutaway Van types of incomplete vehicles contained in this document completed with a body width greater than or equal to 203.2 cm (80 in), OR:**
- **Cutaway Van types of incomplete vehicles contained in this document completed with a body width less than 203.2 cm (80 in), equipped with LED Tail Lamps and a Trailer Wiring Harness Option as manufactured by General Motors.**

The two (2) incomplete vehicle configurations listed above, when completed, will conform to CMVSS 108 and FMVSS 108 provided the following conditions are met:

A. Each of these devices must be properly installed on the completed vehicle and meet all requirements of CMVSS 108 and FMVSS 108:

1. The following devices when provided, located and/or wired by General Motors meet the requirements of CMVSS 108 and FMVSS 108:

Daytime running lamps controls & wiring (Canada)	Park lamps
Front side marker lamps	Turn signal and Vehicle hazard warning indicator lamps
Front side marker reflex reflectors	Turn signal flasher
Headlamp dimmer switch	Turn signal lamps
Headlamp highbeam indicator	Turn signal operating unit
Headlamps and/or fog lamps and indicator lamps	Vehicle hazard warning signal flasher
Owner Manual instructions	Vehicle hazard warning signal operating unit

2. No part of the completed vehicle shall be installed so as to prevent any of the devices listed above from meeting their required photometric output at the specified test points. If such interference exists, the applicable devices may have to be relocated or additional devices added to meet the requirements of CMVSS 108 and FMVSS 108. Any CMVSS 108 or FMVSS 108 part shall not be painted.

3. The following additional devices must be installed on the body and meet all requirements of CMVSS 108 and FMVSS 108 if the body width is greater than or equal to 203.2 cm (80 in):

Front and rear clearance lamps	Rear side marker lamps
Front and rear identification lamps	Rear side marker reflex reflectors

4. The following additional devices must be installed on the body and meet all requirements of CMVSS 108 and FMVSS 108 if the overall vehicle length is greater than or equal to 9.144 m (30 ft):

Intermediate side marker lamps	Intermediate side reflex reflectors
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5. For Cutaway Van types of incomplete vehicles contained in this document with a GVWR 4536 kg (10,000 lb) or less, and completed with a body width less than 203.2 cm (80 in), the final stage manufacturer must install a High-Mounted Stop Lamp in accordance with CMVSS 108 and FMVSS 108 requirements.

B. No alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed in A.1, above.

- C. For School Buses, the intermediate or final stage manufacturer is responsible to install “School Bus Signal Lamps” that comply with CMVSS 108 and FMVSS 108.
- D. Dealers, Intermediate or Final Stage Manufacturers, after removing wooden shipping bumper, must relocate rear tail, stop and turn lights by switching the left hand and right hand brackets and lamp assembly so that the lights are mounted outboard of the shipping position. Two additional installation bolts are included in the Incomplete Vehicle Envelope.

**TYPE 3** The following statement is applicable to Cutaway Van types of incomplete vehicles contained in this document completed with a body width less than 203.2 cm (80 in), and NOT equipped with a Trailer Wiring Harness Option as manufactured by General Motors.

Conformity with CMVSS 108 and FMVSS 108 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 110 and FMVSS 110 – TIRE SELECTION AND RIMS FOR MOTOR VEHICLES WITH A  
GVWR OF 4536 kg (10,000 lb) OR LESS**  
**Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 2** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 110 and FMVSS 110, providing:

- A. No alterations are made which affect the function, physical or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to:

Owner Manual instructions  
Tires

Wheels

- B. GVWR, GAWR front and rear weight ratings as listed on the Incomplete Vehicle Label affixed to the front cover of this document are not exceeded.
- C. The vehicle normal load on the tires shall not be greater than 94 percent of the load rating at the cold inflation pressures listed on the front cover of this document, calculated using the appropriate tire and rim technical organization documents (i.e. Tire and Rim Association, etc.) and CMVSS 110 and FMVSS 110 requirements.
- D. The tire and wheel information shown on the Incomplete Vehicle Document Label must be transferred to the final stage manufacturer’s Certification Label and Tire Information Label, providing no equipment or tire pressure changes are made, and the final stage manufacturer labels the vehicle in compliance with CMVSS 110 and FMVSS 110.

NOTE: Incomplete Vehicles referenced in this document may be shipped with reduced tire pressures for shipping purposes only.

**CMVSS 111 and FMVSS 111 – REARVIEW MIRRORS**  
**Applies to all types of Incomplete Vehicles contained in this Document**  
**Without Shipped Loose Mirror, or Mirror Delete options, and**  
**NOT completed as a School Bus or Multifunction School Activity Bus**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document, without Shipped Loose Mirror, or Mirror Delete options, and **NOT** completed as a School Bus or Multifunction School Activity Bus (unless otherwise noted on the cover).

This incomplete vehicle, as manufactured by General Motors, will conform to CMVSS 111 and FMVSS 111 providing:

- A. No alterations or substitutions are made to the outside mirrors or inside mirrors furnished with the vehicle,

- B. The driver's seat location is not altered,
- C. The body width is not increased, and
- D. The body remains symmetrical about the vehicle centerline.
- E. The intermediate or final stage manufacturer must ensure that the mirrors comply with CMVSS 111 and FMVSS 111 for the completed vehicle type (i.e. Bus-not a School Bus, Motor Home, Multipurpose Passenger Vehicle, School Bus, Truck, etc.)

**CMVSS 111 and FMVSS 111 – REARVIEW MIRRORS**  
**Applies to all types of Incomplete Vehicles contained in this Document**  
**With Shipped Loose Mirror, or Mirror Delete Options**

**TYPE 3** The following statement is applicable to all types of incomplete vehicles contained in this document with shipped loose mirror, or mirror delete options (unless otherwise noted on the cover).

Conformity with CMVSS 111 and FMVSS 111 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 111 and FMVSS 111 – REARVIEW MIRRORS**  
**School Bus, Multifunction School Activity Bus**

**TYPE 3** The following statement is applicable to School Bus and Multifunction School Activity Bus types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

Conformity with CMVSS 111 and FMVSS 111 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 113 and FMVSS 113 – HOOD LATCH SYSTEM**  
**Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 113 and FMVSS 113 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Hood latch systems, which may include but are not limited to:

- |  |  |
|--|--|
| Hood latch (catch) assembly                        | Hood latch striker plate (hook) and reinforcements |
| Hood latch cable release system including controls | Hood latch support assembly                        |
| Hood latch pilot                                   |  |

**CMVSS 114 and FMVSS 114 – THEFT PROTECTION AND ROLLAWAY PREVENTION**  
**Applies to all types of Incomplete Vehicles Contained in this Document**  
**4536 kg (10,000 lb) GVWR or less**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document, 4536 kg (10,000 lb) GVWR or less (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 114 and FMVSS 114 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

- |   |                           |
|---|---------------------------|
| Brake-transaxle/transmission interlock controls | Owner Manual Instructions |
|---|---------------------------|



Electronic Immobilizer  
Engine electronics (BCM/ECM/PCM/TCM)  
Engine starter interlock controls  
Ignition key  
Ignition key warning chime system

Steering column lock assembly  
Transaxle/Transmission assembly  
Transaxle/Transmission assembly neutral start  
switch and wiring

### **CMVSS 115 – VEHICLE IDENTIFICATION NUMBER**

#### **Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 115 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Vehicle Identification Number  
VIN label or plate

VIN plate fasteners

### **CMVSS 116 and FMVSS 116 – MOTOR VEHICLE BRAKE FLUIDS**

#### **Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

The hydraulic brake fluid in this incomplete vehicle, as manufactured by General Motors, will conform to CMVSS 116 and FMVSS 116 providing no alterations are made which affect the physical or chemical properties of the brake fluid.

### **CMVSS 118 and FMVSS 118 – POWER OPERATED WINDOW, PARTITION AND ROOF PANEL SYSTEMS**

#### **Applies to all types of Incomplete Vehicles Contained in this Document**

**4536 kg (10,000 lb) GVWR or less**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document, 4536 (10,000 lb) GVWR or less (unless otherwise noted on the cover).

This incomplete vehicle, if equipped by General Motors with power windows, when completed, will conform to CMVSS 118 and FMVSS 118 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below (if equipped):

Power window electrical system  
Power window operating system

Power window operating system control logic  
Window glazing material

Final compliance with CMVSS 118 and FMVSS 118 is the responsibility of the final stage manufacturer for any modifications, or added material, components, or systems.

### **CMVSS 120 and FMVSS 120 – TIRE SELECTION AND RIMS FOR MOTOR VEHICLES WITH A GVWR OF MORE THAN 4536 kg (10,000 lb)**

#### **Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 2** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 120 and FMVSS 120, providing:

- A. No alterations are made which affect the function, physical or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to:

Owner Manual instructions  
Tires

Wheels

- B. GVWR, GAWR front and rear weight ratings as listed on the Incomplete Vehicle Label affixed to the front cover of this document are not exceeded.
- C. The tire and wheel information shown on the Incomplete Vehicle Document Label must be transferred to the final stage manufacturer's Certification Label providing no equipment or tire pressure changes are made, and the final stage manufacturer labels the vehicle in compliance with CMVSS 120 and FMVSS 120.

NOTE: Incomplete Vehicles referenced in this document may be shipped with reduced tire pressures for shipping purposes only.

**CMVSS 124 and FMVSS 124 – ACCELERATOR CONTROL SYSTEMS**  
**Refer to Vehicle Types, and Applicable “Mobility” Statements that follow**

**TYPE 1 The following statement is applicable to all incomplete vehicle types contained in this document and not equipped with a Mobility Package (unless otherwise noted on the cover).**

This incomplete vehicle, when completed, will conform to CMVSS 124 and FMVSS 124 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Accelerator/throttle control systems, including but not limited to:

Attachment pin, hole or ball stud to fuel injection unit throttle lever	Floor covering material must not be installed under pedal or within 25.4 mm (1 in) of side of pedal
Cable or rod, throttle or accelerator, and support bracket including seals	Lever, throttle or accelerator and supporting bracket
Cruise control module, wiring and cable (if equipped)	Pedal-throttle or accelerator and attachments
Electronic throttle control assembly and related wiring	Spring(s) - throttle or accelerator return

**TYPE 3 The following statement is applicable to all incomplete vehicle types contained in this document and equipped with a Mobility Package (unless otherwise noted on the cover).**

Conformity with CMVSS 124 and FMVSS 124 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**FMVSS 125 – WARNING DEVICES DESIGNED TO BE CARRIED IN MOTOR VEHICLES**  
**Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 1 The following statement is applicable to all types of incomplete vehicles contained in this document if ordered with safety warning triangle option (unless otherwise noted on the cover).**

This incomplete vehicle, when completed, will conform to FMVSS 125 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Safety warning triangles (if equipped)

**CMVSS 126 and FMVSS 126 – ELECTRONIC STABILITY CONTROL SYSTEMS**  
**Applies to all types of Incomplete Vehicles Contained in this Document 4536 kg (10,000 lb)**  
**GVWR or less**

**TYPE 2 The following statement is applicable to all types of incomplete vehicles contained in this document, 4536 (10,000 lb) GVWR or less (unless otherwise noted on the cover).**

This incomplete vehicle when completed will conform to CMVSS 126 and FMVSS 126 provided it is completed in accordance with the following specific conditions by the (intermediate and) final stage manufacturer:

- A. Providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Anti-Lock Brake, Traction Control and Electronic Stability control system, including sensors and control module	Master cylinder-warning statement
Brake assemblies and components (service/parking) - (i.e. power boosters, master cylinder, wheel cylinder, calipers, rotors, wheel speed sensor, wheel speed sensor wiring, brake lining etc.)	Owner Manual instructions
Brake pedal, brake switch, parking brake hand lever or park brake switch and related mechanical components	Parking brake actuator and related mechanical components
Brake system electrical controls and logic	Power steering or vacuum lines and routing
Gauges, warning devices and statements	Power steering or vacuum pump
Hydraulic brake fluid and reservoirs	Tires and Wheels
Hydraulic brake lines, fittings and routings	Stability control system, including control module, sensors and software calibrations
Hydraulic brake valves and components	Steering control system including related hardware
	Suspension components (i.e. bushings, control arms, shocks, springs, sway bars)
	Vacuum brake lines, fittings and routings
	Vehicle wiring harnesses
	Wheelbases

- B. GVWR, GAWR front and rear weight ratings as listed on the Incomplete Vehicle Label affixed to the front cover of this document must not be exceeded.
- C. The Tire Pressures as listed on the Incomplete Vehicle Label affixed to the front cover of this document must be followed
- D. The Maximum Completed Vehicle Unloaded (Curb) restrictions as shown in CMVSS301 and FMVSS 301 Table A, must not be exceeded.
- E. The center of gravity of the total vehicle falls within the areas referenced on the CMVSS 126 and FMVSS 126 Compliance Certification "X = Longitudinal, Y = Lateral and Z = Vertical Center of Gravity (CG) Restrictions" charts that follow. Instructions for determining the allowable center of gravity variation are listed below:

**GMT610 G23405/06, LT245/75R16 Bridgestone V-Steel and  
LT225/75R16 Uniroyal Laredo Tire**

**CMVSS 126 and FMVSS 126 Compliance Certification**

**“X = Longitudinal, Y = Lateral and Z = Vertical Center of Gravity (CG) Restrictions”**

@ Maximum X Longitudinal CG Location from Front Axle CL cm (in)	Model Identification	@ Y – Lateral CG Offset Location cm (in)				
		-10 (-3.9)	-5 (-2)	0	5 (2)	10 (3.9)
157 (61.8)	G23405/06	67.5 (26.5)	70 (27.5)	72.5 (28.5)	70 (27.5)	67.5 (26.5)
167 (65.8)	G23405/06	80 (31.5)	85 (33.5)	87.5 (34.5)	85 (33.5)	80 (31.5)
177 (69.7)	G23405/06	80 (31.5)	85 (33.5)	87.5 (34.5)	85 (33.5)	80 (31.5)
187 (73.6)	G23405/06	80 (31.5)	85 (33.5)	87.5 (34.5)	85 (33.5)	80 (31.5)
197 (77.6)	G23405/06	80 (31.5)	85 (33.5)	87.5 (34.5)	85 (33.5)	80 (31.5)
207 (81.5)	G23405/06	80 (31.5)	85 (33.5)	87.5 (34.5)	85 (33.5)	80 (31.5)
217 (85.4)	G23405/06	67.5 (26.5)	72.5 (28.5)	75 (29.5)	72.5 (28.5)	67.5 (26.5)
		<b>^^^ Maximum Z – Vertical CG Height Restriction Values ^^^</b> <b>NOTE: Minimum Z – Vertical Height Restriction Value is 30 cm (11.8 in) for all models above</b>				

**GMT610 G23705/06, LT245/75R16 Bridgestone V-Steel and  
LT225/75R16 Uniroyal Laredo Tire**

**CMVSS 126 and FMVSS 126 Compliance Certification**

**“X = Longitudinal, Y = Lateral and Z = Vertical Center of Gravity (CG) Restrictions”**

@ Maximum X Longitudinal CG Location from Front Axle CL cm (in)	Model Identification	@ Y – Lateral CG Offset Location cm (in)				
		-10 (-3.9)	-5 (-2)	0	5 (2)	10 (3.9)
184 (72.4)	G23705/06	82.5 (32.5)	85 (33.5)	87.5 (34.5)	85 (33.5)	82.5 (32.5)
194 (76.4)	G23705/06	85 (33.5)	87.5 (34.5)	90 (35.5)	87.5 (34.5)	85 (33.5)
204 (80.3)	G23705/06	87.5 (34.5)	90 (35.5)	92.5 (36.5)	90 (35.5)	87.5 (34.5)
214 (84.3)	G23705/06	87.5 (34.5)	90 (35.5)	92.5 (36.5)	90 (35.5)	87.5 (34.5)
224 (88.2)	G23705/06	87.5 (34.5)	90 (35.5)	92.5 (36.5)	90 (35.5)	87.5 (34.5)
234 (92.1)	G23705/06	87.5 (34.5)	90 (35.5)	92.5 (36.5)	90 (35.5)	87.5 (34.5)
244 (96.1)	G23705/06	87.5 (34.5)	90 (35.5)	92.5 (36.5)	90 (35.5)	87.5 (34.5)
254 (100)	G23705/06	87.5 (34.5)	90 (35.5)	92.5 (36.5)	90 (35.5)	87.5 (34.5)
264 (103.9)	G23705/06	87.5 (34.5)	90 (35.5)	92.5 (36.5)	90 (35.5)	87.5 (34.5)
		<b>^^^ Maximum Z – Vertical CG Height Restriction Values ^^^</b> <b>NOTE: Minimum Z – Vertical Height Restriction Value is 30 cm (11.8 in) for all models above</b>				

<b>GMT610 G33405/06, LT245/75R16 Bridgestone V-Steel Tire CMVSS 126 and FMVSS 126 Compliance Certification</b>						
<b>“X = Longitudinal, Y = Lateral and Z = Vertical Center of Gravity (CG) Restrictions”</b>						
<b>@ Maximum X Longitudinal CG Location from Front Axle CL cm (in)</b>	<b>Model Identification</b>	<b>@ Y – Lateral CG Offset Location cm (in)</b>				
		<b>-10 (-3.9)</b>	<b>-5 (-2)</b>	<b>0</b>	<b>5 (2)</b>	<b>10 (3.9)</b>
157 (61.8)	G33405/06	72.5 (28.5)	75 (29.5)	80 (31.5)	75 (29.5)	72.5 (28.5)
167 (65.8)	G33405/06	82.5 (32.5)	87.5 (34.5)	90 (35.5)	87.5 (34.5)	82.5 (32.5)
177 (69.7)	G33405/06	82.5 (32.5)	87.5 (34.5)	90 (35.5)	87.5 (34.5)	82.5 (32.5)
187 (73.6)	G33405/06	82.5 (32.5)	87.5 (34.5)	90 (35.5)	87.5 (34.5)	82.5 (32.5)
197 (77.6)	G33405/06	82.5 (32.5)	87.5 (34.5)	90 (35.5)	87.5 (34.5)	82.5 (32.5)
207 (81.5)	G33405/06	82.5 (32.5)	87.5 (34.5)	90 (35.5)	87.5 (34.5)	82.5 (32.5)
217 (85.4)	G33405/06	72.5 (28.5)	77.5 (30.5)	80 (31.5)	77.5 (30.5)	72.5 (28.5)
		<b>^^^ Maximum Z – Vertical CG Height Restriction Values</b> <b>^^^</b> <b>NOTE: Minimum Z – Vertical Height Restriction Value</b> <b>is 30 cm (11.8 in) for all models above</b>				

<b>GMT610 G33705/06, LT245/75R16 Bridgestone V-Steel Tire CMVSS 126 and FMVSS 126 Compliance Certification</b>						
<b>“X = Longitudinal, Y = Lateral and Z = Vertical Center of Gravity (CG) Restrictions”</b>						
<b>@ Maximum X Longitudinal CG Location from Front Axle CL cm (in)</b>	<b>Model Identification</b>	<b>@ Y – Lateral CG Offset Location cm (in)</b>				
		<b>-10 (-3.9)</b>	<b>-5 (-2)</b>	<b>0</b>	<b>5 (2)</b>	<b>10 (3.9)</b>
184 (72.4)	G33705/06	82 (32.5)	85 (33.5)	87.5 (34.5)	85 (33.5)	82 (32.5)
194 (76.4)	G33705/06	85 (33.5)	87.5 (34.5)	90 (35.5)	87.5 (34.5)	85 (33.5)
204 (80.3)	G33705/06	87.5 (34.5)	90 (35.5)	92.5 (36.5)	90 (35.5)	87.5 (34.5)
214 (84.3)	G33705/06	90 (35.5)	92.5 (36.5)	95 (37.5)	92.5 (36.5)	90 (35.5)
224 (88.2)	G33705/06	90 (35.5)	92.5 (36.5)	95 (37.5)	92.5 (36.5)	90 (35.5)
234 (92.1)	G33705/06	90 (35.5)	92.5 (36.5)	95 (37.5)	92.5 (36.5)	90 (35.5)
244 (96.1)	G33705/06	90 (35.5)	92.5 (36.5)	95 (37.5)	92.5 (36.5)	90 (35.5)
254 (100)	G33705/06	90 (35.5)	92.5 (36.5)	95 (37.5)	92.5 (36.5)	90 (35.5)
264 (103.9)	G33705/06	90 (35.5)	92.5 (36.5)	95 (37.5)	92.5 (36.5)	90 (35.5)
		<b>^^^ Maximum Z – Vertical CG Height Restriction Values</b> <b>^^^</b> <b>NOTE: Minimum Z – Vertical Height Restriction Value</b> <b>is 30 cm (11.8 in) for all models above</b>				

<b>GMT610 G33503 with Standard Taper Springs, LT245/75R16 Bridgestone V-Steel Tire CMVSS 126 and FMVSS 126 Compliance Certification</b>						
<b>“X = Longitudinal, Y = Lateral and Z = Vertical Center of Gravity (CG) Restrictions”</b>						
<b>@ Maximum X Longitudinal CG Location from Front Axle CL cm (in)</b>	<b>Model Identification</b>	<b>@ Y – Lateral CG Offset Location cm (in)</b>				
		<b>-10 (-3.9)</b>	<b>-5 (-2)</b>	<b>0</b>	<b>5 (2)</b>	<b>10 (3.9)</b>
140 (55.1)	G33503	82.5 (32.5)	85 (33.5)	90 (35.4)	85 (33.5)	82.5 (32.5)
150 (59.0)	G33503	82.5 (32.5)	90 (35.4)	92.5 (36.4)	90 (35.4)	82.5 (32.5)

<b>GMT610 G33503 with Standard Taper Springs, LT245/75R16 Bridgestone V-Steel Tire CMVSS 126 and FMVSS 126 Compliance Certification</b>						
<b>“X = Longitudinal, Y = Lateral and Z = Vertical Center of Gravity (CG) Restrictions”</b>						
<b>@ Maximum X Longitudinal CG Location from Front Axle CL cm (in)</b>	<b>Model Identification</b>	<b>@ Y – Lateral CG Offset Location cm (in)</b>				
		<b>-10 (-3.9)</b>	<b>-5 (-2)</b>	<b>0</b>	<b>5 (2)</b>	<b>10 (3.9)</b>
160 (62.9)	G33503	82.5 (32.5)	90 (35.4)	95 (37.4)	90 (35.4)	82.5 (32.5)
170 (66.9)	G33503	82.5 (32.5)	90 (35.4)	95 (37.4)	90 (35.4)	82.5 (32.5)
180 (70.9)	G33503	82.5 (32.5)	90 (35.4)	95 (37.4)	90 (35.4)	82.5 (32.5)
190 (74.8)	G33503	82.5 (32.5)	85 (33.5)	95 (37.4)	85 (33.5)	82.5 (32.5)
200 (78.7)	G33503	82.5 (32.5)	85 (33.5)	90 (35.4)	85 (33.5)	82.5 (32.5)
210 (82.7)	G33503	80 (31.5)	80 (31.5)	82.5 (32.5)	80 (31.5)	80 (31.5)
		<b>^^^ Maximum Z – Vertical CG Height Restriction Values</b> <b>^^^</b> <b>NOTE: Minimum Z – Vertical Height Restriction Value</b> <b>is 30 cm (11.8 in) for all models above</b>				

<b>GMT610 G33503 with Standard Taper Springs, LT225/75R16E General Tire CMVSS 126 and FMVSS 126 Compliance Certification</b>						
<b>“X = Longitudinal, Y = Lateral and Z = Vertical Center of Gravity (CG) Restrictions”</b>						
<b>@ Maximum X Longitudinal CG Location from Front Axle CL cm (in)</b>	<b>Model Identification</b>	<b>@ Y – Lateral CG Offset Location cm (in)</b>				
		<b>-10 (-3.9)</b>	<b>-5 (-2)</b>	<b>0</b>	<b>5 (2)</b>	<b>10 (3.9)</b>
140 (55.1)	G33503	80 (31.5)	92.5 (36.4)	95 (37.4)	92.5 (36.4)	80 (31.5)
150 (59.0)	G33503	80 (31.5)	92.5 (36.4)	95 (37.4)	92.5 (36.4)	80 (31.5)
160 (62.9)	G33503	80 (31.5)	92.5 (36.4)	95 (37.4)	92.5 (36.4)	80 (31.5)
170 (66.9)	G33503	80 (31.5)	92.5 (36.4)	95 (37.4)	92.5 (36.4)	80 (31.5)
180 (70.9)	G33503	80 (31.5)	92.5 (36.4)	95 (37.4)	92.5 (36.4)	80 (31.5)
190 (74.8)	G33503	80 (31.5)	92.5 (36.4)	95 (37.4)	92.5 (36.4)	80 (31.5)
200 (78.7)	G33503	80 (31.5)	90 (35.4)	90 (35.4)	90 (35.4)	80 (31.5)
210 (82.7)	G33503	80 (31.5)	90 (35.4)	90 (35.4)	90 (35.4)	80 (31.5)
		<b>^^^ Maximum Z – Vertical CG Height Restriction Values</b> <b>^^^</b> <b>NOTE: Minimum Z – Vertical Height Restriction Value</b> <b>is 30 cm (11.8 in) for all models above</b>				

<b>GMT610 G33503 with “option 9Q4 - Spring Rear Lowered”, LT245/75R16 Bridgestone V-Steel Tire CMVSS 126 and FMVSS 126 Compliance Certification</b>						
<b>“X = Longitudinal, Y = Lateral and Z = Vertical Center of Gravity (CG) Restrictions”</b>						
<b>@ Maximum X Longitudinal CG Location from Front Axle CL cm (in)</b>	<b>Model Identification</b>	<b>@ Y – Lateral CG Offset Location cm (in)</b>				
		<b>-10 (-3.9)</b>	<b>-5 (-2)</b>	<b>0</b>	<b>5 (2)</b>	<b>10 (3.9)</b>
140 (55.1)	G33503	82.5 (32.5)	87.5 (34.4)	90 (35.4)	87.5 (34.4)	82.5 (32.5)
150 (59.0)	G33503	82.5 (32.5)	87.5 (34.4)	90 (35.4)	87.5 (34.4)	82.5 (32.5)
160 (62.9)	G33503	82.5 (32.5)	87.5 (34.4)	90 (35.4)	87.5 (34.4)	82.5 (32.5)

<b>GMT610 G33503 with “option 9Q4 - Spring Rear Lowered”,            LT245/75R16 Bridgestone V-Steel Tire            CMVSS 126 and FMVSS 126 Compliance Certification            “X = Longitudinal, Y = Lateral and Z = Vertical Center of Gravity (CG) Restrictions”</b>						
<b>@ Maximum X            Longitudinal CG            Location from Front            Axle CL            cm (in)</b>	<b>Model            Identification</b>	<b>@ Y – Lateral CG Offset Location cm (in)</b>				
		<b>-10            (-3.9)</b>	<b>-5            (-2)</b>	<b>0</b>	<b>5            (2)</b>	<b>10            (3.9)</b>
170 (66.9)	G33503	80 (31.5)	87.5 (34.4)	90 (35.4)	87.5 (34.4)	80 (31.5)
180 (70.9)	G33503	80 (31.5)	87.5 (34.4)	90 (35.4)	87.5 (34.4)	80 (31.5)
190 (74.8)	G33503	80 (31.5)	85 (33.5)	85 (33.5)	85 (33.5)	80 (31.5)
200 (78.7)	G33503	80 (31.5)	80 (31.5)	80 (31.5)	80 (31.5)	80 (31.5)
210 (82.7)	G33503	80 (31.5)	80 (31.5)	80 (31.5)	80 (31.5)	80 (31.5)
		<b>^^^ Maximum Z – Vertical CG Height Restriction Values            ^^^</b>  <b>NOTE: Minimum Z – Vertical Height Restriction Value            is 30 cm (11.8 in) for all models above</b>				

<b>GMT610 G33503 with “option 9Q4 - Spring Rear Lowered”, LT225/75R16E General Tire            CMVSS 126 and FMVSS 126 Compliance Certification            “X = Longitudinal, Y = Lateral and Z = Vertical Center of Gravity (CG) Restrictions”</b>						
<b>@ Maximum X            Longitudinal CG            Location from Front            Axle CL            cm (in)</b>	<b>Model            Identification</b>	<b>@ Y – Lateral CG Offset Location cm (in)</b>				
		<b>-10            (-3.9)</b>	<b>-5            (-2)</b>	<b>0</b>	<b>5            (2)</b>	<b>10            (3.9)</b>
140 (55.1)	G33503	87.5 (34.4)	95 (37.4)	95 (37.4)	95 (37.4)	87.5 (34.4)
150 (59.0)	G33503	87.5 (34.4)	95 (37.4)	95 (37.4)	95 (37.4)	87.5 (34.4)
160 (62.9)	G33503	87.5 (34.4)	95 (37.4)	95 (37.4)	95 (37.4)	87.5 (34.4)
170 (66.9)	G33503	87.5 (34.4)	95 (37.4)	95 (37.4)	95 (37.4)	87.5 (34.4)
180 (70.9)	G33503	87.5 (34.4)	92.5 (36.4)	95 (37.4)	92.5 (36.4)	87.5 (34.4)
190 (74.8)	G33503	87.5 (34.4)	92.5 (36.4)	92.5 (36.4)	92.5 (36.4)	87.5 (34.4)
200 (78.7)	G33503	87.5 (34.4)	92.5 (36.4)	92.5 (36.4)	92.5 (36.4)	87.5 (34.4)
210 (82.7)	G33503	87.5 (34.4)	92.5 (36.4)	92.5 (36.4)	92.5 (36.4)	87.5 (34.4)
		<b>^^^ Maximum Z – Vertical CG Height Restriction Values            ^^^</b>  <b>NOTE: Minimum Z – Vertical Height Restriction Value            is 30 cm (11.8 in) for all models above</b>				

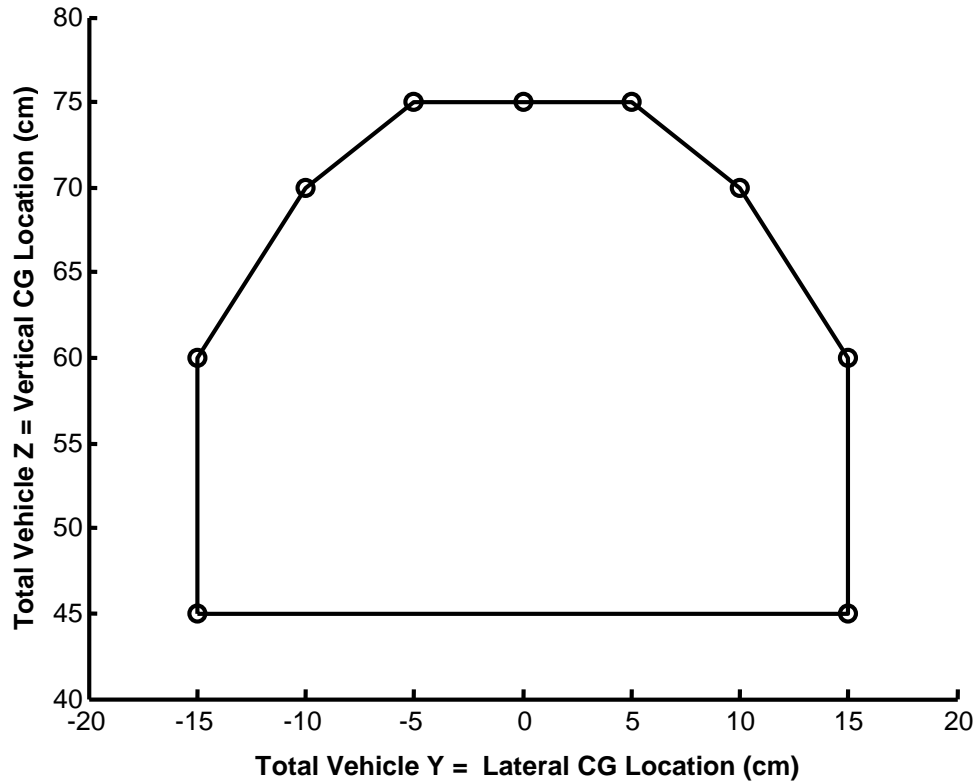
<b>GMT610 G33503 with “option 9R5 - Spring Rear Recreational Vehicle”,            LT245/75R16 Bridgestone V-Steel Tire            CMVSS 126 and FMVSS 126 Compliance Certification            “X = Longitudinal, Y = Lateral and Z = Vertical Center of Gravity (CG) Restrictions”</b>						
<b>@ Maximum X            Longitudinal CG            Location from Front            Axle CL            cm (in)</b>	<b>Model            Identification</b>	<b>@ Y – Lateral CG Offset Location cm (in)</b>				
		<b>-10            (-3.9)</b>	<b>-5            (-2)</b>	<b>0</b>	<b>5            (2)</b>	<b>10            (3.9)</b>
140 (55.1)	G33503	80 (31.5)	80 (31.5)	90 (35.4)	80 (31.5)	80 (31.5)
150 (59.0)	G33503	80 (31.5)	87.5 (34.4)	92.5 (36.4)	87.5 (34.4)	80 (31.5)
160 (62.9)	G33503	80 (31.5)	87.5 (34.4)	95 (37.4)	87.5 (34.4)	80 (31.5)

<b>GMT610 G33503 with “option 9R5 - Spring Rear Recreational Vehicle”,            LT245/75R16 Bridgestone V-Steel Tire            CMVSS 126 and FMVSS 126 Compliance Certification            “X = Longitudinal, Y = Lateral and Z = Vertical Center of Gravity (CG) Restrictions”</b>						
<b>@ Maximum X            Longitudinal CG            Location from Front            Axle CL            cm (in)</b>	<b>Model            Identification</b>	<b>@ Y – Lateral CG Offset Location cm (in)</b>				
		<b>-10            (-3.9)</b>	<b>-5            (-2)</b>	<b>0</b>	<b>5            (2)</b>	<b>10            (3.9)</b>
170 (66.9)	G33503	80 (31.5)	87.5 (34.4)	95 (37.4)	87.5 (34.4)	80 (31.5)
180 (70.9)	G33503	80 (31.5)	87.5 (34.4)	95 (37.4)	87.5 (34.4)	80 (31.5)
190 (74.8)	G33503	80 (31.5)	87.5 (34.4)	95 (37.4)	87.5 (34.4)	80 (31.5)
200 (78.7)	G33503	80 (31.5)	87.5 (34.4)	87.5 (34.4)	87.5 (34.4)	80 (31.5)
210 (82.7)	G33503	80 (31.5)	85 (33.5)	87.5 (34.4)	85 (33.5)	80 (31.5)
		<b>^^^ Maximum Z – Vertical CG Height Restriction Values            ^^^</b>  <b>NOTE: Minimum Z – Vertical Height Restriction Value            is 30 cm (11.8 in) for all models above</b>				

<b>GMT610 G33803, LT245/75R16 Bridgestone V-Steel Tire            CMVSS 126 and FMVSS 126 Compliance Certification            “X = Longitudinal, Y = Lateral and Z = Vertical Center of Gravity (CG) Restrictions”</b>						
<b>@ Maximum X            Longitudinal CG            Location from Front            Axle CL            cm (in)</b>	<b>Model            Identification</b>	<b>@ Y – Lateral CG Offset Location cm (in)</b>				
		<b>-10            (-3.9)</b>	<b>-5            (-2)</b>	<b>0</b>	<b>5            (2)</b>	<b>10            (3.9)</b>
150 (59.0)	G33803	79 (31.3)	79 (31.3)	83 (32.8)	79 (31.3)	79 (31.3)
160 (62.9)	G33803	83 (32.6)	84 (33.0)	90 (35.6)	84 (33.0)	83 (32.6)
170 (66.9)	G33803	83 (32.6)	84 (33.0)	90 (35.6)	84 (33.0)	83(32.6)
180 (70.9)	G33803	83 (32.6)	90 (35.6)	90 (35.6)	90 (35.6)	83 (32.6)
190 (74.8)	G33803	83 (32.6)	90 (35.6)	90 (35.6)	90 (35.6)	83 (32.6)
200 (78.7)	G33803	83 (32.6)	86 (33.7)	90 (35.6)	86 (33.7)	83 (32.6)
210 (82.7)	G33803	83 (32.6)	86 (33.7)	90 (35.6)	86 (33.7)	83 (32.6)
220 (86.6)	G33803	83 (32.6)	86 (33.7)	86 (33.7)	86 (33.7)	83 (32.6)
230 (90.6)	G33803	81 (32.1)	86 (33.7)	86 (33.7)	86 (33.7)	81 (32.1)
240 (94.5)	G33803	80 (31.5)	86 (33.7)	86 (33.7)	86 (33.7)	80 (31.5)
		<b>^^^ Maximum Z – Vertical CG Height Restriction Values            ^^^</b>  <b>NOTE: Minimum Z – Vertical Height Restriction Value            is 30 cm (11.8 in) for all models above</b>				



**CMVSS 126 and FMVSS 126 Compliance Certification Y = Lateral and Z = Vertical Center of Gravity Restriction Visual Representation EXAMPLE shown in centimeters**



For upfitter use and applicable to CMVSS 126 and FMVSS 126, the longitudinal and vertical vehicle center of gravity location can be approximated by following the formula below and by referencing data elements within CMVSS 105 and FMVSS 105 – HYDRAULIC AND ELECTRIC BRAKE SYSTEMS or CMVSS 135 and FMVSS 135 LIGHT VEHICLE BRAKE SYSTEMS, ... ALLOWABLE CENTER OF GRAVITY CHARTS.

$$d = \frac{[Wrc + Wrb] WB}{Wt}$$

$$h = \frac{[h1*Wc + h2*Wb]}{Wt}$$

- d = horizontal distance from front wheels to completed vehicle center of gravity cm (in)
- h = vertical distance from ground to completed vehicle center of gravity cm (in)
- Wrc = rear component of Chassis weight kg (lb)
- Wrb = rear component of body weight kg (lb)
- WB = vehicle wheelbase cm (in)
- Wt = total weight of chassis and body kg (lb)
- h1 = center of gravity height from ground of the Bare Chassis: Based on model applicability, refer to the h1 values listed in this document within: CMVSS 105/FMVSS 105 - HYDRAULIC AND ELECTRIC BRAKE SYSTEMS, or CMVSS 135/FMVSS 135 - LIGHT VEHICLE BRAKE SYSTEMS.
- Wc = total weight of vehicle as manufactured by General Motors kg (lb)
- h2 = center of gravity height of body from ground cm (in)
- Wb = total weight of body kg (lb)

In addition, the equation to calculate the lateral vehicle center of gravity location from center of vehicle can be estimated by using the following formula:

$$\text{lateral offset from centerline of vehicle} = \{[(\text{RF corner weight kg (lb)} + \text{RR corner weight kg (lb)}) / (\text{total vehicle weight kg (lb)})] - 0.5\} * \text{vehicle track width of 152 cm (59.8 in)}$$

If the lateral offset from centerline of vehicle calculation above results in a positive number, the lateral vehicle offset center of gravity is toward the right side (passenger) of the vehicle.

Alternatively, if the lateral offset from centerline of vehicle calculation above results in a negative number, the lateral vehicle offset center of gravity is toward the left side (driver) of the vehicle.

**CMVSS 131 and FMVSS 131 – SCHOOL BUS PEDESTRIAN SAFETY DEVICES**  
**Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 3** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

Conformity with CMVSS 131 and FMVSS 131 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**FMVSS 138 – TIRE PRESSURE MONITORING SYSTEMS (If Equipped)**  
**Applies to all types of Incomplete Vehicles Contained in this Document**  
**4536 kg (10,000 lb) GVWR or less**

**TYPE 2** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to FMVSS 138, providing the vehicle is equipped with a Tire Pressure Monitoring System (TPMS) installed by General Motors, and no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below (if equipped):

Body control module	Tires and Wheels
Instrument panel cluster	TPMS receiver module
Owners Manual instructions	TPMS sensors integral to the valve stems
Remote start coax antennae (if equipped)	Vehicle wiring harness

If equipped with a TPMS system as built by General Motors, incomplete vehicles shipped from the GM assembly plant will have tire pressures set for shipping purposes only. It is responsibility of the final stage manufacturer to label the vehicle in compliance to FMVSS 138. In addition, it is the responsibility of the final stage manufacturer to ensure the TPMS system is calibrated to the values printed on the final stage manufacturer's Tire Certification Label or Tire Information Label.

NOTES: Wheelbase alteration, and/or addition of components may interfere with the TPMS radio frequency signal that may result in a malfunction warning displayed in the Driver Information Center (DIC). **If this condition is observed, go to the GM Upfitter Integration website located at [www.gmupfitter.com](http://www.gmupfitter.com)**

The TPMS is not required to monitor the spare tire, either when it is stowed or when it is installed on the vehicle.

## CMVSS 201 and FMVSS 201 – OCCUPANT PROTECTION IN INTERIOR IMPACT

MVSS 201 contains two components: 201L (Lower Interior, FMVSS 201 Section S5 and CMVSS 201 equivalent) applies to instrument panels, seat backs, interior compartment doors, sun visors, door armrests and seat armrests, and 201U (Upper Interior FMVSS 201 Sections S6 – S10) applies to the pillars, seat belt anchorages located on a pillar, front header, side roof rails, rear header, upper roof, sliding door track and door frames.

### For All Models 4536 kg (10,000 lb) GVWR or less

#### 201L (Lower Interior, FMVSS 201 Section S5 and CMVSS 201 equivalent)

**TYPE 1** The following statement is applicable to all models 4536 kg (10,000 lb) GVWR or less types of incomplete vehicles contained in this document (unless otherwise noted on the cover)

This incomplete vehicle, when completed, will conform to 201L (Lower Interior, FMVSS 201 Section S5 and CMVSS 201 equivalent), providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Air bag system	Interior compartment doors
Armrests, folding and stationary	Interior door panel armrests
Body structure	Overhead console
Center console	Seats
Center console compartment door (if equipped)	Seats (if equipped with folding armrest)
Door trim	Seats, seat backs, and head restraints
Door structure	Sun visor mounts
DVD rear entertainment system	Sun visors
Headliner	Upper interior trim
Instrument panel	

#### 201L (Lower Interior, FMVSS 201 Section S5 and CMVSS 201 equivalent)

**TYPE 3** The following statement is applicable to all models 4536 kg (10,000 lb) GVWR or less types of incomplete vehicles contained in this document with respect to any seats or seat assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with 201L (Lower Interior, FMVSS 201 Section S5 and CMVSS 201 equivalent), cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

### Applicable to Passenger Van Models 4536 kg (10,000 lb) GVWR or less

#### 201U (Upper Interior FMVSS 201 Sections S6 – S10)

**TYPE 1** The following statement is applicable to Passenger Van models 4536 kg (10,000 lb) GVWR or less types of incomplete vehicles contained in this document (unless otherwise noted on the cover)

This incomplete vehicle, when completed, will conform to 201U (Upper Interior FMVSS 201 Sections S6 – S10), providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Roof rail airbag system (if equipped)	Headliner
Body structure	Instrument panel
Door trim	Interior compartment doors
Door structure	Sun visors
DVD rear entertainment system	Upper interior trim
Overhead console	

NOTE: Compliance to FMVSS 201, Section S6 – S10, requires trim and energy absorbing countermeasures either built into or underneath the headliner, garnish moldings, D-Ring covers, door trim and other interior trim components. All incomplete Passenger Vans as built by General Motors are fully trimmed and will comply with FMVSS 201, Section S6 – S10.

**Applicable to ONLY the Front Seating Positions of the Cargo or Cutaway Van models 4536 kg (10,000 lb) GVWR or less**

**201U (Upper Interior FMVSS 201 sections S6 – S10)**

**TYPE 1** The following statement is applicable to **ONLY** the front seating positions of the Cargo or Cutaway Van models 4536 kg (10,000 lb) GVWR or less, types of incomplete vehicles contained in this document (unless otherwise noted on the cover)

This incomplete vehicle, when completed, will conform to 201U (Upper Interior FMVSS 201 sections S6 – S10), providing no components or panels are installed by the subsequent stage manufacturer forward of a zone measured 300 mm (11.8 inches) rearward from the driver's seating reference point, and no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Roof rail airbag system, if equipped	Headliner
Body structure	Instrument panel
Door trim	Interior compartment doors
Door structure	Sun visors
DVD rear entertainment system	Upper interior trim
Overhead console	

NOTE: Compliance to 201U (Upper Interior FMVSS 201 sections S6 – S10), requires trim and energy absorbing countermeasures either built into or underneath the headliner, garnish moldings and D-Ring covers, door trim and other interior trim components. Incomplete Cargo Vans and Cutaway Vans as built by General Motors are fully trimmed for the driver and front passenger seating positions and will comply with FMVSS 201, Section S6 – S10.

**Applicable to Seating Positions OTHER THAN the Front Row for Cargo and Cutaway Van models 4536 kg (10,000 lb) GVWR or less**

**201U (Upper Interior FMVSS 201 sections S6 – S10)**

**TYPE 3** The following statement is applicable to Seating Positions OTHER THAN the Front Row for Cargo and Cutaway Van models 4536 kg (10,000 lb) GVWR or less types of incomplete vehicles contained in this document.

Conformity with 201U (Upper Interior FMVSS 201 sections S6 – S10), cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

NOTE: Applicable to all Cargo, Cutaway or Passenger Incomplete Vehicles, any seats installed by intermediate or final stage manufacturers must comply with CMVSS 201 and FMVSS 201. In addition, the "H" point of any seats installed by the intermediate or final stage manufacturers must be located as shown in the **GM Upfitter Integration website located at [www.gmupfitter.com](http://www.gmupfitter.com)**

**CMVSS 202 – HEAD RESTRAINTS**

**Applies to all types of Incomplete Vehicles Contained in this Document**  
**4536 kg (10,000 lb) GVWR or less**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document, 4536 kg (10,000 lb) GVWR or less (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 202 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Front seat assemblies including head restraints      Owner Manual Instructions

**TYPE 3 The following statement is applicable to any type of incomplete vehicle contained in this document, 4536 kg (10,000 lb) GVWR or less, with any seat delete option that is applicable to any seating position (unless otherwise noted on the cover).**

Conformity with CMVSS 202 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**FMVSS 202A – HEAD RESTRAINTS**  
**Applies to all types of Incomplete Vehicles Contained in this Document**  
**4536 kg (10,000 lb) GVWR or less**

**TYPE 1 The following statement is applicable to all Front Seating Positions in all types of incomplete vehicles contained in this document, 4536 kg (10,000 lb) GVWR or less (unless otherwise noted on the cover).**

This incomplete vehicle, when completed, will conform to FMVSS 202A providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below

Front seat assemblies including head restraints      Owner Manual Instructions

**TYPE 3 The following statement is applicable to all Rear Seating Positions in all types of incomplete vehicles contained in this document, 4536 kg (10,000 lb) GVWR or less, with any seat delete option or when any alterations are made to Rear Seating Positions as manufactured by GM (unless otherwise noted on the cover).**

Conformity with FMVSS 202A cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

NOTE: If the intermediate or final stage manufacturer adds or modifies seats as manufactured by General Motors, they are also responsible to provide an addendum to the Owner Manual in order to meet FMVSS 202A requirements.

**CMVSS 203 and FMVSS 203 – IMPACT PROTECTION FOR THE DRIVER FROM THE STEERING WHEEL CONTROL SYSTEM**  
**Applies to all types of Incomplete Vehicles Contained in this Document**  
**4536 kg (10,000 lb) GVWR or less**

**TYPE 1 The following statement is applicable to all types of incomplete vehicles contained in this document, 4536 kg (10,000 lb) or less (unless otherwise noted on the cover).**

This incomplete vehicle, when completed, will conform to CMVSS 203 and FMVSS 203 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Driver's seat assembly      Steering control system including related hardware  
Instrument panel      Steering wheel, column, and shaft

**TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document, 4536 kg (10,000 lb) GVWR or less, with any driver seat delete option (unless otherwise noted on the cover).**

Conformity with CMVSS 203 and FMVSS 203 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

## **CMVSS 204 and FMVSS 204 – STEERING CONTROL REARWARD DISPLACEMENT**

### **Applies to all types of Incomplete Vehicles Contained in this Document**

#### **4536 kg (10,000 lb) GVWR or less and an unloaded vehicle weight of 2495 kg (5,500 lb) or less**

**TYPE 2** The following statement is applicable to all types of incomplete vehicles contained in this document, 4536 kg (10,000 lb) GVWR or less and an unloaded vehicle weight of 2495 kg (5,500 lb) or less (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 204 and FMVSS 204 providing the dimension and mass as well as other restrictions found in MVSS 301 Table A, are not exceeded, and no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below that would affect the steering control system displacement in a 48 k.p.h. (30 m.p.h.) fixed barrier impact:

Frame assembly and mounting system	Steering wheel, column, and shaft assembly
Front impact bar assembly and mounting system	Tires and wheels
Hood and hinge assemblies	Vehicle/body front end sheet metal components
Powertrain and powertrain mounting system	Vehicle/body front end structural components
Steering control system including related hardware	Vehicle/body roof structure and components

**TYPE 3** The following statement is applicable to any type of incomplete vehicle contained in this document, 4536 kg (10,000 lb) GVWR or less, with any bumper delete option.

Conformity with CMVSS 204 and FMVSS 204 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

## **CMVSS 205 and FMVSS 205 – GLAZING MATERIALS**

### **Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 205 and FMVSS 205 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Glazing material	Visibility of the monogram
The monogram	Windshield shade banding

Final compliance with CMVSS 205 and FMVSS 205 is the responsibility of the final stage manufacturer for any modifications, or added material, parts, components, or systems.

## **CMVSS 206 and FMVSS 206 – DOOR LOCKS AND DOOR RETENTION COMPONENTS**

### **Applies to all types of Incomplete Vehicles Contained in this Document**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 206 and FMVSS 206 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Door and pillar systems, including but not limited to:

Body rear end upper and lower panel  
Door hinges  
Door latch strikers and striker plates  
Door latches  
Door locks  
Door pillars

Door track (for sliding door)  
Door wedges  
Doors  
Inside lock control linkages  
Interior and Exterior door handles

Final compliance with CMVSS 206 and FMVSS 206 is the responsibility of the final stage manufacturer for any modifications, or added material, parts, components, or systems.

**TYPE 3 The following statement is applicable to any type of incomplete vehicle contained in this document as manufactured by General Motors with any door delete option.**

Conformity with CMVSS 206 and FMVSS 206 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

### **CMVSS 207 and FMVSS 207 – SEATING SYSTEMS** **Applies to all types of Incomplete Vehicles Contained in this Document**

**TYPE 1 The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).**

This incomplete vehicle, when completed, will conform to CMVSS 207 and FMVSS 207 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Floor pan assemblies  
Folding seat or seat back latch assembly  
Seat adjuster assembly  
Seat anchorage brackets, reinforcements,  
attachment hardware, etc.

Seat assembly  
Seat or seat back latch assembly  
Seat or seat back latch release control  
Seat or seat back latch striker  
Seat riser

**TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).**

Conformity with CMVSS 207 and FMVSS 207 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

### **CMVSS 208 and FMVSS 208 – OCCUPANT CRASH PROTECTION** **Applies to Incomplete Vehicle Types Designated Below**

**TYPE 2 The following statement is applicable to all types of vehicles contained in this document (unless otherwise noted on the cover) with a GVWR greater than 3856 kg (8,500 lb), and built by General Motors with complete seats and seat belt assemblies.**

This incomplete vehicle, when completed, will conform to CMVSS 208 and FMVSS 208 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Owner Manual instructions  
Seat anchorages  
Seat assemblies

Seat belt anchorages  
Seat belt assemblies  
Seat belt warning system

**TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).**

Conformity with CMVSS 208 and FMVSS 208 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 209 and FMVSS 209 – SEAT BELT ASSEMBLIES**  
**Applies to all types of Incomplete Vehicles Contained in this Document**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

The seat belt assembly provided by General Motors when mounted to its original attachments locations at any designated seating position, will conform to CMVSS 209 and FMVSS 209 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Owner Manual instructions	Seat belt anchorages
Seat anchorages	Seat belt assemblies
Seat assemblies	

**TYPE 3** The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with CMVSS 209 and FMVSS 209 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 210 and FMVSS 210 – SEAT BELT ASSEMBLY ANCHORAGES**  
**Applies to all types of Incomplete Vehicles Contained in this Document**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 210 and FMVSS 210 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

B, C, and D-pillar structures	Seat assemblies
Child restraint system including lower and top tether anchorages, seat brackets, plates and reinforcements	Seat belt assemblies
Floor pan assembly	Seat belt anchorage brackets, plates, and reinforcements
Owner Manual instructions	Seat belt routing
Roof structure	Seat position/adjustment capability

NOTE: The right front passenger seat as manufactured by General Motors (if equipped) will not comply with FMVSS 210 School Bus requirements for vehicles completed on or after October 21, 2011.

**TYPE 3** The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with CMVSS 210 and FMVSS 210 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 210.1 – TETHER ANCHORAGES FOR RESTRAINT SYSTEMS**  
**Applies to Incomplete Vehicles Contained in this Document with 12 or 15 passenger seating to be completed as a Bus and not to be completed as a School Bus with a GVWR of 4536 kg (10,000 lb) or less**



**TYPE 1 The following statement is applicable to a bus not to be completed as a school bus with a GVWR of 4536 kg (10,000 lb) or less as manufactured by General Motors with the seats supplied by General Motors for the following seat options:**

Twelve passenger seating

Fifteen passenger seating

This incomplete vehicle, when completed, will conform to CMVSS 210.1 provided the original equipment seats are not replaced, no seating positions are removed or added, and no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Air bag manual cut-off switch (if equipped)

Child restraint system including lower and top tether anchorages, seat brackets, plates and reinforcements

Access to lower anchorage system

Floor pan assembly

Labeling requirements

Owner Manual instructions

Seat assemblies

Seat belt assemblies

Seat belt anchorage brackets, plates, and reinforcements

Seat belt routing

Seat position/adjustment capability

### **CMVSS 210.1 – TETHER ANCHORAGES**

**Applies to Incomplete Vehicles contained in this Document completed as a school bus regardless of weight**

**TYPE 3 The following statement is applicable to all incomplete vehicle types contained in this document completed as a school bus regardless of weight.**

Conformity with CMVSS 210.1 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

### **CMVSS 210.2 – LOWER UNIVERSAL ANCHORAGE SYSTEMS FOR RESTRAINT SYSTEMS AND BOOSTER CUSHIONS**

**Applies to Incomplete Vehicles Contained in this Document with 12 or 15 passenger seating to be completed as a Bus, and not to be completed as a School Bus with a GVWR of 4536 kg (10,000 lb) or less**

**TYPE 1 The following statement is applicable to a bus not to be completed as a school bus with a GVWR of 4536 kg (10,000 lb) or less as manufactured by General Motors with the seats supplied by General Motors for the following seat options:**

Twelve passenger seating

Fifteen passenger seating

This incomplete vehicle, when completed, will conform to CMVSS 210.2 provided the original equipment seats are not replaced, no seating positions are removed or added, and no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Air bag manual cut-off switch (if equipped)

Child restraint system including lower and top tether anchorages, seat brackets, plates and reinforcements

Access to lower anchorage system

Floor pan assembly

Labeling requirements

Owner Manual instructions

Seat assemblies

Seat belt assemblies

Seat belt anchorage brackets, plates, and reinforcements

Seat belt routing

Seat position/adjustment capability

### **CMVSS 210.2 – LOWER UNIVERSAL ANCHORAGE SYSTEMS FOR RESTRAINT SYSTEMS AND BOOSTER CUSHIONS**

**Applies to Incomplete Vehicles contained in this Document completed as a school bus regardless of weight**

**TYPE 3 The following statement is applicable to all incomplete vehicle types contained in this document completed as a school bus regardless of weight.**

Conformity with CMVSS 210.2 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 212 and FMVSS 212 – WINDSHIELD MOUNTING**  
**Cargo and Passenger Van 4536 kg (10,000 lb) GVWR or less**

**TYPE 2 The following statement is applicable to Cargo and Passenger Van incomplete vehicles contained in this document (unless otherwise noted on the cover) with a 4536 kg (10,000 lb) GVWR or less when completed will conform to CMVSS 212 and FMVSS 212 if:**

A. No alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Air bag crash sensors	Seat belt assemblies
Air bag system including covers and module	Sensing and Diagnostic Module (SDM) and retainers/brackets
Air bag system wiring harnesses, connectors, and fuses/relays	Steering control system including related hardware
Dash panel and cowl assembly	Steering wheel, column, and shaft assembly
Doors and hinge assemblies	Sun visor assemblies
Frame assembly and mounting system	Vehicle/body front sheet metal components/reinforcements
Front impact bar assembly and mounting system	Vehicle/body front structural components/reinforcements
Hood and hinge assemblies	Vehicle/body roof structure and components
Powertrain and powertrain mounting system	Windshield and windshield mounting system
Seat anchorages	Windshield frame/frame reinforcement
Seat assemblies	
Seat belt anchorages	

B. The dimension and mass, as well as other restrictions found in MVSS 301 Table A, are not exceeded.

C. The minimum vertical clearance between the cab roof and any portion of the installed body or accessories that extends over the cab roof must not be less than 20 cm (8 in).

D. During a 48 k.p.h. (30 m.p.h.) frontal barrier impact test, no component installed by any intermediate or final stage manufacturer shall move forward from its permanently mounted position.

**CMVSS 212 and FMVSS 212 – WINDSHIELD MOUNTING**  
**Cutaway Vans 4536 kg (10,000 lb) GVWR or less**

**TYPE 3 The following statement is applicable to Cutaway Van with a 4536 kg (10,000 lb) GVWR or less types of incomplete vehicles contained in this document (unless otherwise noted on the cover).**

Conformity with CMVSS 212 and FMVSS 212 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 213.4 and FMVSS 213 – BUILT- IN CHILD RESTRAINT SYSTEMS AND BUILT- IN BOOSTER CUSHIONS**  
**Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).**

Conformity with CMVSS 213.4 and FMVSS 213 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 214 and FMVSS 214 – SIDE IMPACT PROTECTION**  
**Cargo and Passenger Van 4536 kg (10,000 lb) GVWR or less – Static**

**TYPE 1** The following statement is applicable to Cargo and Passenger Van incomplete vehicles contained in this document with a 4536 kg (10,000 lb) GVWR or less for static requirements.

This incomplete vehicle, when completed, will conform to CMVSS 214 and FMVSS 214 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Air bag crash sensors	Door trim panels
Air bag system including covers and module	Door wedges
Air bag system wiring harnesses, connectors, and fuses/relays	Door window mechanisms
Body structure including roof structure and components	Seat anchorages
Body sheet metal components/reinforcements	Seat assemblies
Door assemblies	Seat belt anchorages
Door hinges	Seat belt assemblies
Door latch mechanisms	Sensing and Diagnostic Module (SDM) and retainers/brackets
Door latch strikers and striker plates	Side curtain airbag system (if equipped)
Door latches	Tires and Wheels
Door pillars	Upper interior trim including headliner
	Vehicle frame

**CMVSS 214 and FMVSS 214 – SIDE IMPACT PROTECTION**  
**Cutaway Van 4536 kg (10,000 lb) GVWR or less – Static**

**TYPE 3** The following statement is applicable to Cutaway Van with a 4536 kg (10,000 lb) GVWR or less for static requirements

Conformity with CMVSS 214 and FMVSS 214 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 217 and FMVSS 217 – BUS EMERGENCY EXITS AND WINDOW RETENTION AND RELEASE**  
**Cutaway Van with Bus and School Bus Option**

**TYPE 3** The following statement is applicable to Cutaway Van with Bus and School Bus Option incomplete vehicle types contained in this document (unless otherwise noted on the cover).

Conformity with CMVSS 217 and FMVSS 217 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard, other than the "Note" immediately following.

NOTE: The following windows installed on this vehicle by General Motors meet the window retention requirements of this standard:

Left hand front (driver) side door glass	Right hand front (passenger) side door glass (when ordered)
Windshield	

**CMVSS 217 and FMVSS 217 – BUS EMERGENCY EXITS AND WINDOW RETENTION AND RELEASE**  
**12 & 15 Passenger Van**

**TYPE 1** The following statements are applicable 12 and 15 Passenger Van incomplete vehicle types contained in this document (unless otherwise noted on the cover).

This incomplete vehicle will conform to CMVSS 217 and FMVSS 217 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Access to all doors  
All door systems

Windows (back or side)

**CMVSS 219 and FMVSS 219 – WINDSHIELD ZONE INTRUSION**  
**Applies to Cargo or Passenger Van types of Incomplete Vehicles contained in this Document**  
**4536 kg (10,000 lb) GVWR or less**

**TYPE 2** The following statement is applicable to all Cargo or Passenger Van types of incomplete vehicles contained in this document with a 4536 kg (10,000 lb) GVWR or less, but not applicable to walk-in vans, motor homes, tow-trucks, ambulance, or other emergency/rescue/medical vehicles equipped for wheelchairs (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 219 and FMVSS 219 providing:

A. No alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Antennae	Hood assembly
Body roof structure and components/reinforcements	Hood mounts
Body sheet metal components/reinforcements	Motor compartment structure and components
Body structural components/reinforcements	Windshield wiper
Dash panel and cowl structure	Windshield wiper motor

B. The dimension and mass, as well as other restrictions found in MVSS 301 Table A, are not exceeded.

C. during a 48 k.p.h. (30 m.p.h.) frontal barrier impact test:

1. no component installed by any intermediate or final stage manufacturer shall prevent the hood from folding in its designed folding pattern; and
2. no component installed by any intermediate or final stage manufacturer shall penetrate the windshield or protected zone.

**CMVSS 219 and FMVSS 219 – WINDSHIELD ZONE INTRUSION**  
**Cutaway Van 4536 kg (10,000 lb) GVWR or less**

**TYPE 3** The following statement is applicable to Cutaway Van with a 4536 kg (10,000 lb) GVWR or less types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

Conformity with CMVSS 219 and FMVSS 219 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 220 and FMVSS 220 – SCHOOL BUS ROLLOVER PROTECTION**  
**Applies to all types of Incomplete Vehicles Contained in this Document**

**TYPE 3** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

Conformity with CMVSS 220 and FMVSS 220 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 221 and FMVSS 221 – SCHOOL BUS BODY JOINT STRENGTH**  
**Applies to all types of Incomplete Vehicles Contained in this Document**

**TYPE 3** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

Conformity with CMVSS 221 and FMVSS 221 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 222 and FMVSS 222 – SCHOOL BUS PASSENGER SEATING AND CRASH PROTECTION**  
**Applies to all types of Incomplete Vehicles Contained in this Document**

**TYPE 3** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

Conformity with CMVSS 222 and FMVSS 222 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**FMVSS 225 – CHILD RESTRAINT ANCHORAGE SYSTEMS**  
**Applies to all types of Incomplete Vehicles Contained in this Document 3856 kg (8,500 lb) GVWR or less, and to Buses 4536 kg (10,000 lb) or less**

**TYPE 1** The following statements are applicable to all incomplete vehicle types contained in this document 3856 kg (8,500 lb) GVWR or less, and with 12 or 15 Passenger Van seating (Bus) (unless otherwise noted on the cover) with seats installed by General Motors.

This incomplete vehicle, when completed, will conform to FMVSS 225 provided the original equipment seats are not replaced, no seating positions are removed or added, and no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Air bag manual cut-off switch (if equipped)	Seat assemblies
Child restraint system including lower and top tether anchorages, seat brackets, plates and reinforcements	Seat belt assemblies
Access to top tether and lower anchorage systems	Seat belt anchorage brackets, plates, and reinforcements
Floor pan assembly	Seat belt routing
Owner Manual instructions	Seat position/adjustment capability

**TYPE 3** The following statement is applicable to any incomplete vehicle contained in this document (unless otherwise noted on the cover) with seat or seat belt delete options in any seating position; or vehicles completed as a bus, school bus, multifunction school activity bus, or built with YF7 recreational vehicle option.

Conformity with FMVSS 225 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 301 and FMVSS 301 – FUEL SYSTEM INTEGRITY**  
**Refer to Vehicle Types, GVWRs, and Applicable Statements that follow**

**TYPE 2** The following statement is applicable to all types of incomplete vehicles contained in this document 4536 kg (10,000 lb) GVWR or less with any Incomplete Option (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 301 and FMVSS 301 providing it is completed in accordance with the following specific conditions by the (intermediate and) final stage manufacturer:

- A. The following items when installed by General Motors will conform providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial

clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Fuel filler door assembly	Fuel tank filler neck/pipe assembly
Fuel filter	Fuel tank filler neck/pipe fasteners
Fuel hose shields	Fuel tank filler neck/pipe hose clamp/clamp assembly
Fuel pipes and hose assemblies	Fuel tank filler neck/pipe housing assembly
Fuel system	Fuel tank filler neck/pipe plate
Fuel system attaching or protective structure	Fuel tank filler neck/pipe vent hose
Fuel system control module	Fuel tank filler neck/pipe vent hose clamp/strap
Fuel system fasteners and retainers	Fuel tank meter assembly
Fuel tank assembly	Fuel tank shields
Fuel tank cap assembly	Fuel vapor lines and canister assembly
Fuel tank filler neck hose	

NOTES:

The above statements EXCLUDE:

- Vehicles equipped with a temporary fuel tank as shipped from General Motors.
  - Cargo Van types of incomplete vehicles equipped with Left Hand Side Rear Cargo Door with Spare Tire Delete options, since this vehicle configuration is not tested or validated to CMVSS 301 and FMVSS 301 by General Motors.
- B. This incomplete vehicle, when completed, will conform to CMVSS 301 and FMVSS 301 Fuel System Integrity if:
1. No alterations are made to the fuel system and attaching or protective structure, the contents or arrangement of the engine compartment, the powertrain and driveline, the cab structure, the chassis structure, the bumper system, door structure, or tires and wheels, as manufactured by General Motors.
  2. The dimension and mass as well as other restrictions found in MVSS 301 Table A are not exceeded.
  3. The final stage manufacturer completes the fuel filler neck and fuel level sender installation(s) according to “Best Practices” or “Special Applications (if applicable)” sections found within the **GM Upfitter Integration website located at [www.gmupfitter.com](http://www.gmupfitter.com)**
  4. During all barrier impact tests:
    - a. No component installed by any intermediate or final stage manufacturer impinges or causes distortion to the fuel system with sufficient energy to puncture or separate the fuel system.
    - b. No vehicle modification by any intermediate or final stage manufacturer results in any portion of the vehicle impinging upon or causing distortion to the fuel system with sufficient energy to puncture or separate the fuel system. Care should be taken that the structural integrity of the vehicle is restored following any modification of the structure.
    - c. Any body installed by an intermediate or final stage manufacturer is mounted securely to absorb loads and prevent movement relative to the frame which could cause any fuel system component to be punctured, separated or otherwise damaged when tested to applicable procedures of CMVSS 301 or FMVSS 301.

**TYPE 2 The following statement is applicable to Cutaway Van models G33503 with a GVWR of 4,581kg (10,100 lb) (RPO JFF), equipped with option B3D-Equipment School Bus, R04-Single Rear Wheel Configuration, and a 124 liter (33 gallon) mid-frame mounted fuel tank types of incomplete vehicles contained in this document (unless otherwise noted on the cover).**

This incomplete vehicle, when completed, will conform to CMVSS 301 and FMVSS 301 providing it is completed in accordance with the following specific conditions by the (intermediate and) final stage manufacturer:

- A. The following items when installed by General Motors will conform providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Fuel filler door assembly	Fuel tank filler neck/pipe fasteners
Fuel filter	Fuel tank filler neck/pipe hose clamp/clamp assembly
Fuel hose shields	Fuel tank filler neck/pipe housing assembly
Fuel pipes and hose assemblies	Fuel tank filler neck/pipe plate
Fuel system	Fuel tank filler neck/pipe vent hose
Fuel system attaching or protective structure	Fuel tank filler neck/pipe vent hose clamp/strap
Fuel system fasteners and retainers	Fuel tank meter assembly
Fuel tank assembly	Fuel tank shields
Fuel tank cap assembly	Fuel vapor lines and canister assembly
Fuel tank filler neck hose	
Fuel tank filler neck/pipe assembly	

NOTE: The above statements exclude vehicles equipped with a temporary fuel tank as shipped from General Motors.

- B. This incomplete vehicle, when completed, will conform to CMVSS 301 and FMVSS 301 Fuel System Integrity if:
1. No alterations are made to the fuel system and attaching or protective structure, the cab structure, the chassis structure, the tires and wheels, as manufactured by General Motors.
  2. The dimension and mass as well as other restrictions found in MVSS 301 Table A, are not exceeded.
  3. The final stage manufacturer completes the fuel filler neck and fuel level sender installation(s) according to "Best Practices" or "Special Applications (if applicable)" sections found within the **GM Upfitter Integration website located at [www.gmupfitter.com](http://www.gmupfitter.com)**
  4. During all barrier impact tests:
    - a. No component installed by any intermediate or final stage manufacturer impinges or causes distortion to the fuel system with sufficient energy to puncture or separate the fuel system.
    - b. No vehicle modification by any intermediate or final stage manufacturer results in any portion of the vehicle impinging upon or causing distortion to the fuel system with sufficient energy to puncture or separate the fuel system. Care should be taken that the structural integrity of the vehicle is restored following any modification of the structure.
    - c. Any body installed by an intermediate or final stage manufacturer is mounted securely to absorb loads and prevent movement relative to the frame, which could cause any fuel system component to be punctured, separated or otherwise damaged when tested to applicable procedures of CMVSS 301 or FMVSS 301.
  5. The fuel system for the school bus will comply with the CMVSS 301 and FMVSS 301 Barrier Performance requirements based on the vehicle meeting the following condition that follows:
    - a. The school bus body is constructed with the floor height NOT EXCEEDING a distance of:
      - i. 110 mm (4.3 in) as measured from the top of the frame to the bottom surface of the interior floor, AND
      - ii. 51 mm (2.0 in) as measured from the top of the frame to the bottom surface of the floor lateral support structure. NOTE: The floor lateral support structure must span from the frame rail outward to within 25 mm (1.0 in) of the body skirt.
    - b. For all vehicle equipped with auxiliary batteries:

- i. The auxiliary battery must remain in the **left side** frame mounted battery bracket location (rearward of the rear cab mount and forward of the front spring hanger for the rear suspension), as manufactured by General Motors, OR
- ii. The auxiliary battery may be relocated by the subsequent stage manufacturer. The battery bracket may be installed on the right frame rail OR a battery enclosure may be added to the right side of the body in an area rearward of the rear cab mount and forward of the front spring hanger for the rear suspension.

**TYPE 2 The following statement is applicable to Cutaway Van models G33503 or G33803 with a GVWR of 4,559 kg (10,050 lb) (option 9N2) or 5,579 kg (12,300 lb) (option C7N), equipped with option B3D - Equipment School Bus, option R05 - Dual Rear Wheel Configuration, and a 124 liter (33 gallon) mid-frame mounted fuel tank types of incomplete vehicles contained in this document (unless otherwise noted on the cover).**

This incomplete vehicle, when completed, will conform to CMVSS 301 and FMVSS 301 providing it is completed in accordance with the following specific conditions by the (intermediate and) final stage manufacturer:

- A. The following items when installed by General Motors will conform providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Fuel filler door assembly	Fuel tank filler neck/pipe fasteners
Fuel filter	Fuel tank filler neck/pipe hose clamp/clamp assembly
Fuel hose shields	Fuel tank filler neck/pipe housing assembly
Fuel pipes and hose assemblies	Fuel tank filler neck/pipe plate
Fuel system	Fuel tank filler neck/pipe vent hose
Fuel system attaching or protective structure	Fuel tank filler neck/pipe vent hose clamp/strap
Fuel system fasteners and retainers	Fuel tank meter assembly
Fuel tank assembly	Fuel tank shields
Fuel tank cap assembly	Fuel vapor lines and canister assembly
Fuel tank filler neck hose	
Fuel tank filler neck/pipe assembly	

NOTE: The above statements exclude vehicles equipped with a temporary fuel tank as shipped from General Motors.

- B. This incomplete vehicle, when completed, will conform to CMVSS 301 and FMVSS 301 Fuel System Integrity if:
  - 1. No alterations are made to the fuel system and attaching or protective structure, the cab structure, the chassis structure, the tires and wheels, as manufactured by General Motors.
  - 2. The dimension and mass as well as other restrictions found in MVSS 301 Table A, are not exceeded.
  - 3. The final stage manufacturer completes the fuel filler neck and fuel level sender installation(s) according to "Best Practices" or "Special Applications (if applicable)" sections found within the **GM Upfitter Integration website located at [www.gmupfitter.com](http://www.gmupfitter.com)**
  - 4. During all barrier impact tests:
    - a. No component installed by any intermediate or final stage manufacturer impinges or causes distortion to the fuel system with sufficient energy to puncture or separate the fuel system.
    - b. No vehicle modification by any intermediate or final stage manufacturer results in any portion of the vehicle impinging upon or causing distortion to the fuel system with sufficient energy to puncture or separate the fuel system. Care should be taken that the structural integrity of the vehicle is restored following any modification of the structure.
    - c. Any body installed by an intermediate or final stage manufacturer is mounted securely to absorb loads and prevent movement relative to the frame, which could cause any fuel system component to be punctured, separated or otherwise damaged when tested to applicable procedures of CMVSS 301 or FMVSS 301.



5. The fuel system for the school bus will comply with the CMVSS 301 and FMVSS 301 Barrier Performance requirements based on the vehicle meeting one of the following two conditions listed in sections 5a and 5b that follow:
  - a. The school bus body is constructed with the floor height NOT EXCEEDING a distance of:
    1. 110 mm (4.3 in) as measured from the top of the frame to the bottom surface of the interior floor, AND
    2. 51 mm (2.0 in) as measured from the top of the frame to the bottom surface of the floor lateral support structure. NOTE: The floor lateral support structure must span from the frame rail outward to within 25 mm (1.0 in) of the body skirt.
  - b. The school bus body is constructed utilizing RPO BNC [Soft Body Mount Cushions (or equivalent)], to mount the bus body to the frame, and:
    1. with the floor height EXCEEDING a distance of 110 mm (4.3 in) as measured from the top of the frame to the bottom surface of the interior floor, OR
    2. with the floor height EXCEEDING a distance of 51 mm (2.0 in) as measured from the top of the frame to the bottom surface of the floor lateral support structure. NOTE: The floor lateral support structure must span from the frame rail outward to within 25 mm (1.0 in) of the body skirt.
    3. a fuel tank protective structure must be installed conforming with the design requirements of the Manufacturers Council of Small School Buses, design #0079\_100 Rev 01/14/02, or design # 418-001, revision level "D".
    4. for diesel vehicles equipped with a fuel tank protective structure installed conforming with the design requirements of the Manufacturers Council of Small School Buses, design #0079\_100 Rev 01/14/02:
      - i. the auxiliary battery must be relocated to the right side of the vehicle in an area rearward of the rear cab mount and forward of the front spring hanger for the rear suspension
      - ii. the auxiliary battery must be attached securely to the vehicle's frame outboard side in such a manner that the durability of the battery mounting bracket and attachment structure is maintained and doesn't interfere with the installation or functionality of the sub-frame structure required for the flat floor school bus design.

**TYPE 2 The following statement is applicable to Cutaway Van models G338 (03) with a GVWR of 6,441 kg (14,200 lb), equipped with option B3D-Equipment School Bus, option R05-Dual Rear Wheel Configuration, and a 124 liter (33 gallon) mid-frame mounted fuel tank types of incomplete vehicles contained in this document (unless otherwise noted on the cover).**

This incomplete vehicle, when completed, will conform to CMVSS 301 and FMVSS 301 providing it is completed in accordance with the following specific conditions by the (intermediate and) final stage manufacturer

- A. The following items when installed by General Motors will conform providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Fuel filler door assembly	Fuel tank filler neck/pipe fasteners
Fuel filter	Fuel tank filler neck/pipe hose clamp/clamp assembly
Fuel hose shields	Fuel tank filler neck/pipe housing assembly
Fuel pipes and hose assemblies	Fuel tank filler neck/pipe plate
Fuel system	Fuel tank filler neck/pipe vent hose
Fuel system attaching or protective structure	Fuel tank filler neck/pipe vent hose clamp/strap
Fuel system fasteners and retainers	Fuel tank meter assembly
Fuel tank assembly	Fuel tank shields
Fuel tank cap assembly	Fuel vapor lines and canister assembly
Fuel tank filler neck hose	

Fuel tank filler neck/pipe assembly

NOTE: The above statements exclude vehicles equipped with a temporary fuel tank as shipped from General Motors.

- B. This incomplete vehicle, when completed, will conform to CMVSS 301 and FMVSS 301 Fuel System Integrity if:
1. No alterations are made to the fuel system and attaching or protective structure, the cab structure, the chassis structure, the tires and wheels, as manufactured by General Motors.
  2. The dimension and mass as well, as other restrictions found in MVSS 301 Table A, are not exceeded.
  3. The final stage manufacturer completes the fuel filler neck installation(s) according to “Best Practices” or “Special Applications (if applicable)” sections found within the **GM Upfitter Integration website located at [www.gmupfitter.com](http://www.gmupfitter.com)**
  4. During all barrier impact tests:
    - a. No component installed by any intermediate or final stage manufacturer impinges or causes distortion to the fuel system with sufficient energy to puncture or separate the fuel system.
    - b. No vehicle modification by any intermediate or final stage manufacturer results in any portion of the vehicle impinging upon or causing distortion to the fuel system with sufficient energy to puncture or separate the fuel system. Care should be taken that the structural integrity of the vehicle is restored following any modification of the structure.
    - c. Any body installed by an intermediate or final stage manufacturer is mounted securely to absorb loads and prevent movement relative to the frame which could cause any fuel system component to be punctured, separated or otherwise damaged when tested to applicable procedures of CMVSS 301 or FMVSS 301.
  5. The fuel system for the school bus will comply with the CMVSS 301 and FMVSS 301 Barrier Performance requirements based on the vehicle meeting one of the following two conditions listed in sections 5a and 5b that follow:
    - a. The school bus body is constructed with the floor height NOT EXCEEDING a distance of:
      - i. 110 mm (4.3 in) as measured from the top of the frame to the bottom surface of the interior floor, AND
      - ii. 51 mm (2.0 in) as measured from the top of the frame to the bottom surface of the floor lateral support structure. NOTE: The floor lateral support structure must span from the frame rail outward to within 25 mm (1.0 in) of the body skirt.
    - b. The school bus body is constructed utilizing RPO BNC [Soft Body Mount Cushions (or equivalent)], to mount the bus body to the frame, with the floor height EXCEEDING a distance of:
      - i. 110 mm (4.3 in) as measured from the top of the frame to the bottom surface of the interior floor, OR
      - ii. 51 mm (2.0 in) as measured from the top of the frame to the bottom surface of the floor lateral support structure. NOTE: The floor lateral support structure must span from the frame rail outward to within 25 mm (1.0 in) of the body skirt.
      - iii. a fuel tank protective structure must be installed conforming with the design requirements of the Manufacturers Council of Small School Buses, design # 418-001, revision level “D”.

## TABLE A

<b>Models</b>	<b>GVWR kg (lb)</b>	<b>Engine</b>	<b>@ Maximum Unloaded Vehicle CMVSS/FMVSS 301 Weight kg (lb)</b>	<b>Maximum Frontal Area m<sup>2</sup> (ft<sup>2</sup>)</b>
G23405	3901 kg (8,600 lb)=C6P	4.8L Gas=L20	3039 kg (6,700 lb)	Not Applicable
G23405	3901 kg (8,600 lb)=C6P	6.0L Gas=L96	3039 kg (6,700 lb)	Not Applicable
G23405	3901 kg (8,600 lb)=C6P	6.6L Diesel=LGH	3266 kg (7,200 lb)	Not Applicable
G23406	3901 kg (8,600 lb)=C6P	4.8L Gas=L20	3039 kg (6,700 lb)	Not Applicable
G23406	3901 kg (8,600 lb)=C6P	6.0L Gas=L96	3039 kg (6,700 lb)	Not Applicable
G23705	3901 kg (8,600 lb)=C6P	4.8L Gas=L20	3039 kg (6,700 lb)	Not Applicable
G23705	3901 kg (8,600 lb)=C6P	6.0L Gas=L96	3039 kg (6,700 lb)	Not Applicable
G23705	3901 kg (8,600 lb)=C6P	6.6L Diesel=LGH	3266 kg (7,200 lb)	Not Applicable
G33405	4354 kg (9,600 lb)=C6Y	4.8L Gas=L20	3039 kg (6,700 lb)	Not Applicable
G33405	4354 kg (9,600 lb)=C6Y	6.0L Gas=L96	3606 kg (7,950 lb)	Not Applicable
G33405	4354 kg (9,600 lb)=C6Y	6.6L Diesel=LGH	3719 kg (8,200 lb)	Not Applicable
G33406	3992 kg (8,800 lb)=C6Y	6.6L Diesel=LGH	3606 kg (7,950 lb)	Not Applicable
G33406	4354 kg (9,600 lb)=C6Y	4.8L Gas=L20	3039 kg (6,700 lb)	Not Applicable
G33406	4354 kg (9,600 lb)=C6Y	6.0L Gas=L96	3606 kg (7,950 lb)	Not Applicable
G33406	4354 kg (9,600 lb)=C6Y	6.6L Diesel=LGH	3719 kg (8,200 lb)	Not Applicable
G33503	3901 kg (8,600 lb)=9E9	4.8L Gas=L20	3479 kg (7,670 lb)	6.9 (74)
G33503	3901 kg (8,600 lb)=9E9	6.0L Gas=L96	3479 kg (7,670 lb)	6.9 (74)
G33503	3901 kg (8,600 lb)=9E9	6.6L Diesel=LGH	3479 kg (7,670 lb)	Not Applicable
G33503	4354 kg (9,600 lb)=C6Y	4.8L Gas=L20	3479 kg (7,670 lb)	6.9 (74)
G33503	4354 kg (9,600 lb)=C6Y	6.0L Gas=L96	3606 kg (7,950 lb)	6.9 (74)
G33503	4354 kg (9,600 lb)=C6Y	6.6L Diesel=LGH	3719 kg (8,200 lb)	Not Applicable
G33503	4491 kg (9,900 lb)=C4M	4.8L Gas=L20	3479 kg (7,670 lb)	6.9 (74)
G33503	4491 kg (9,900 lb)=C4M	6.0L Gas=L96	3606 kg (7,950 lb)	6.9 (74)
G33503	4491 kg (9,900 lb)=C4M	6.6L Diesel=LGH	3719 kg (8,200 lb)	Not Applicable
G33705	4354 kg (9,600 lb)=C6Y	4.8L Gas=L20	3039 kg (6,700 lb)	Not Applicable
G33705	4354 kg (9,600 lb)=C6Y	6.0L Gas=L96	3606 kg (7,950 lb)	Not Applicable
G33705	4491 kg (9,900 lb)=C4M	6.6L Diesel=LGH	3719 kg (8,200 lb)	Not Applicable
G33705	4502 kg (9,925 lb)=C4K	6.6L Diesel=LGH	3719 kg (8,200 lb)	Not Applicable
G33706	4354 kg (9,600 lb)=C6Y	4.8L Gas=L20	3039 kg (6,700 lb)	Not Applicable
G33706	4354 kg (9,600 lb)=C6Y	6.0L Gas=L96	3606 kg (7,950 lb)	Not Applicable
G33706	4491 kg (9,900 lb)=C4M	6.6L Diesel=LGH	3719 kg (8,200 lb)	Not Applicable
G33803	4491 kg (9,900 lb)=C4M	4.8L Gas=L20	3479 kg (7,670 lb)	6.9 (74)
G33803	4491 kg (9,900 lb)=C4M	6.0L Gas=L96	3606 kg (7,950 lb)	6.9 (74)
G33803	4491 kg (9,900 lb)=C4M	6.6L Diesel=LGH	3719 kg (8,200 lb)	Not Applicable

Models	B3D=School Bus Applicability	GVWR kg (lb)	Engine	@ Maximum Vehicle CMVSS/FMVSS 301 Test Weight kg (lb)	Maximum Frontal Area m <sup>2</sup> (ft <sup>2</sup> )
G33503	B3D=School Bus	4559 kg (10,050 lb)=9N2	6.6L Diesel=LGH	4559 kg (10,050 lb)	Not Applicable
G33503	B3D=School Bus	4581 kg (10,100 lb)=JFF	6.6L Diesel=LGH	4581 kg (10,100 lb)	Not Applicable
G33503	B3D=School Bus	4559 kg (10,050 lb)=9N2	4.8L Gas=L20	4559 kg (10,050 lb)	7.9 (85)
G33503	B3D=School Bus	4559 kg (10,050 lb)=9N2	6.0L Gas=L96	4559 kg (10,050 lb)	7.9 (85)
G33503	B3D=School Bus	4581 kg (10,100 lb)=JFF	4.8L Gas=L20	4581 kg (10,100 lb)	7.9 (85)
G33503	B3D=School Bus	4581 kg (10,100 lb)=JFF	6.0L Gas=L96	4581 kg (10,100 lb)	7.9 (85)
G33503	B3D=School Bus	5579 kg (12,300 lb)=C7N	6.0L Gas=L96	5579 kg (12,300 lb)	7.9 (85)
G33503	B3D=School Bus	5579 kg (12,300 lb)=C7N	6.6L Diesel=LGH	5579 kg (12,300 lb)	Not Applicable
G33803	B3D=School Bus	4559 kg (10,050 lb)=9N2	6.6L Diesel=LGH	4559 kg (10,050 lb)	Not Applicable
G33803	B3D=School Bus	5579 kg (12,300 lb)=C7N	6.6L Diesel=LGH	5579 kg (12,300 lb)	Not Applicable
G33803	B3D=School Bus	4559 kg (10,050 lb)=9N2	4.8L Gas=L20	4559 kg (10,050 lb)	7.9 (85)
G33803	B3D=School Bus	4559 kg (10,050 lb)=9N2	6.0L Gas=L96	4559 kg (10,050 lb)	7.9 (85)
G33803	B3D=School Bus	5579 kg (12,300 lb)=C7N	6.0L Gas=L96	5579 kg (12,300 lb)	7.9 (85)
G33803	B3D=School Bus	6441 kg (14,200 lb)=C7I	6.0L Gas=L96	6441 kg (14,200 lb)	7.9 (85)
G33803	B3D=School Bus	6441 kg (14,200 lb)=C7I	6.6L Diesel=LGH	6441 kg (14,200 lb)	Not Applicable

Notes:

- Final Stage Manufacturer completed vehicle weight should not exceed the **maximum unloaded vehicle weight** or **maximum test weight** or **maximum frontal area** shown in Table A. If weight is exceeded, re-certification by Final Stage Manufacturer may be required.
- The **Unloaded Vehicle FMVSS/CMVSS 301 Weight** means the weight of the Final Stage Manufacturer completed vehicle with the maximum capacity of all fluids necessary for the operation of the vehicle but without cargo or occupants.
- **For School Buses the Maximum FMVSS/CMVSS 301 Test Weight** is the **Maximum Unloaded Vehicle Weight** plus the minimum occupant weight allowance shall be 54.4 kg (120 lb) per passenger and 68 kg (150 lb) for the driver.
- Also see the Vehicle Emission Control Information Label in the vehicle engine compartment for maximum completed vehicle curb weight, GVWR, and frontal area restrictions, if applicable.
- Due to ongoing product development these weights are subject to change.
- For models completed as a "School Bus", Final Stage Manufacturers are required to provide propshaft guards as necessary to comply with School Bus regulations.

**CMVSS 301.1 – LPG FUEL SYSTEM INTEGRITY**  
**Refer to Vehicle Types, GVWRs, and Applicable Statements that follow**

**TYPE 2** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 301.1 providing it is completed in accordance with the following specific conditions by the (intermediate and) final stage manufacturer:

A. The following items when installed by General Motors will conform providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

Fuel filter	Fuel tank filler neck/pipe hose clamp/clamp assembly
Fuel hose shields	Fuel tank filler neck/pipe housing assembly
Fuel pipes and hose assemblies	Fuel tank filler neck/pipe plate
Fuel system	Fuel tank filler neck/pipe vent hose
Fuel system attaching or protective structure	Fuel tank filler neck/pipe vent hose clamp/strap
Fuel system control module	Fuel tank fuel level sensor, liquid level gauge, power supply bushing, return valve, service valve, supply valve, 80% stop fill valve
Fuel system fasteners and retainers	Fuel tank meter assembly
Fuel tank assembly	Fuel tank shields
Fuel tank cap assembly	
Fuel tank filler neck hose	
Fuel tank filler cup/neck/pipe/port assembly	
Fuel tank filler neck/pipe fasteners	

B. This incomplete vehicle, when completed, will conform to CMVSS 301.1 LPG Fuel System Integrity if:

1. No alterations are made to the fuel system and attaching or protective structure, the contents or arrangement of the engine compartment, the powertrain and driveline, the cab structure, the chassis structure, the bumper system, door structure, or tires and wheels, as manufactured by General Motors.
2. The mass as well as other restrictions found in CMVSS 301.1 Table B are not exceeded.
3. The final stage manufacturer completes the fuel fill hose mounting according to “Best Practices” found within the **GM Upfitter Integration website located at [www.gmupfitter.com](http://www.gmupfitter.com)**
4. During all barrier impact tests:
  - a. No component installed by any intermediate or final stage manufacturer impinges or causes distortion to the fuel system with sufficient energy to puncture or separate the fuel system.
  - b. No vehicle modification by any intermediate or final stage manufacturer results in any portion of the vehicle impinging upon or causing distortion to the fuel system with sufficient energy to puncture or separate the fuel system. Care should be taken that the structural integrity of the vehicle is restored following any modification of the structure.
  - c. Any body installed by an intermediate or final stage manufacturer is mounted securely to absorb loads and prevent movement relative to the frame which could cause any fuel system component to be punctured, separated or otherwise damaged when tested to applicable procedures of CMVSS 301.1

## TABLE B

Models	GVWR kg (lb)	Engine	@ Maximum Unloaded Vehicle CMVSS 301.1 Weight kg (lb)	Maximum Frontal Area m <sup>2</sup> (ft <sup>2</sup> )
G33803 w/ 3 tank system	6441 kg (14,200 lb)=C71	6.0L Gas=LC8	4763 kg (10,500 lb)	7.9 (85)
G33803 w/ 4 tank sytem	6441 kg (14,200 lb)=C71	6.0L Gas=LC8	4763 kg (10,500 lb)	7.9 (85)

Models	B3D=School Bus Applicability	GVWR kg (lb)	Engine	@ Maximum Vehicle CMVSS 301.1 Test Weight kg (lb)	Maximum Frontal Area m <sup>2</sup> (ft <sup>2</sup> )
G33803 w/ 3 tank system	B3D=School Bus	6441 kg (14,200 lb)=C71	6.0L Gas=LC8	6441 kg (14,200 lb)=C71	7.9 (85)

Notes:

- Final Stage Manufacturer completed vehicle weight should not exceed the **Maximum Unloaded Vehicle Weight** or **Maximum Test Weight** or **maximum frontal area** shown in Table B. If weight is exceeded, re-certification by Final Stage Manufacturer may be required.
- The **Unloaded Vehicle CMVSS 301.1 Weight** means the weight of the Final Stage Manufacturer completed vehicle with the maximum capacity of all fluids necessary for the operation of the vehicle but without cargo or occupants.
- **For School Buses the Maximum Vehicle CMVSS 301.1 Test Weight** is the **Maximum Unloaded Vehicle Weight** plus the minimum occupant weight allowance shall be 54.4 kg (120 lb) per passenger and 68 kg (150 lb) for the driver.
- Also see the Vehicle Emission Control Information Label in the vehicle engine compartment for maximum completed vehicle curb weight, GVWR, and frontal area restrictions, if applicable.
- Due to ongoing product development these weights are subject to change.
- For models completed as a "School Bus", Final Stage Manufacturers are required to provide propshaft guards as necessary to comply with School Bus regulations.

### **CMVSS 302 and FMVSS 302 - FLAMMABILITY OF INTERIOR MATERIALS** **Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 1** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed will conform to CMVSS 302 and FMVSS 302 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below:

All trim panels including door, front, rear and side panels	Instrument panel
Arm rests	Seat assemblies
Compartment shelves	Seat backs
Console	Seat belts
Engine compartment covers	Seat cushions
Floor coverings	Shades
Head restraints	Sun visors
Headlining	Wheel housing covers

NOTE: Any other interior materials, including padding and crash deployed elements that are designed to absorb energy on contact by occupants in the event of a crash.

**TYPE 3** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover). If the intermediate or final stage manufacturer installs any items but not

limited to those listed above (examples: Curtains, Engine compartment cover, Mattress covers, Shades and Wheel housing covers, etc.), they must also meet the requirements of this CMVSS 302 and FMVSS 302.

Conformity with CMVSS 302 and FMVSS 302 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**CMVSS 301.2 and FMVSS 303 – CNG FUEL SYSTEM INTEGRITY**  
**Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 3** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

Conformity with CMVSS 301.2 and FMVSS 303 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**FMVSS 304 – COMPRESSED NATURAL GAS FUEL CONTAINERS**  
**Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 3** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

Conformity with FMVSS 304 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**FMVSS 403 – PLATFORM LIFT SYSTEMS**  
**Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 3** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

Conformity with FMVSS 403 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

**FMVSS 404 – PLATFORM LIFT INSTALLATIONS IN MOTOR VEHICLES**  
**Applies to all types of Incomplete Vehicles contained in this Document**

**TYPE 3** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

Conformity with FMVSS 404 cannot be determined based upon the components supplied on the incomplete vehicle, and General Motors makes no representation to conformity with the standard.

## **PART II**

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### **U.S. EPA, CALIFORNIA, AND CANADIAN EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS AND EPA/NHTSA GREENHOUSE GAS EMISSIONS/FUEL ECONOMY REGULATIONS**

Incomplete vehicles come in three major classifications: (1) Light Duty Vehicles, Light Duty Trucks, and Heavy Duty Vehicles (Including Medium Duty in California) are certified by the primary manufacturer and the vehicle is labeled as being in compliance with emission and fuel economy requirements. (2) Heavy Duty Vehicles are required to have an engine certified by the engine manufacturer and bear an engine emissions label, and if a gasoline vehicle, also bear an evaporative emissions label, (3) Light Duty Vehicles certified and labeled by the intermediate or final stage vehicle manufacturer as being in compliance with emission and fuel economy requirements.

Reference PART I CMVSS 301 and FMVSS 301 Table A and Table B, and PART II Table C. The completed vehicle Maximum Unloaded Vehicle (Curb) Weight, GVWR, and/or Maximum Frontal Area restrictions shown in Tables A, B and

C should not be exceeded. If any of these restrictions are exceeded, re-certification by the final stage manufacturer will be required.

In addition, all gasoline/gasoline-ethanol blend powered Federal/California Light Duty, Medium Duty and Heavy Duty Vehicles are required to have an approved fuel evaporative emission control system. Vehicles certified to Heavy Duty gasoline emission standards also require special evaporative emission labeling. In order to assure that Environmental Protection Agency (EPA), National Highway Traffic Safety Administration (NHTSA), California and Canada Emission Certification and/or Greenhouse Gas/Fuel Economy regulations are met, this vehicle must be completed in strict accordance with all instructions contained in this manual, especially the following instructions which relate to:

## EMISSION RELATED COMPONENTS

**TYPE 1 The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).**

- A. This incomplete vehicle, when completed, will conform to U.S. EPA, CALIFORNIA, AND CANADIAN EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS AND EPA/NHTSA GREENHOUSE GAS EMISSIONS/FUEL ECONOMY REGULATIONS providing the vehicle is completed in strict accordance with all statements included in this document, especially those that relate to: "EMISSION RELATED COMPONENTS, and no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems, as manufactured by General Motors, including but not limited to those listed below (if equipped):

Air Injection Reaction (AIR) System

Axle

Brake System

Catalytic Converter

Components for All Wheel Drive (AWD) System:

axle, Power Take-Off Unit (PTU), propshaft

Diesel Exhaust Emission Reduction Fluid (DEF)

system, including, but not limited to: associated plumbing, fill neck assembly, heated delivery line, heater, injector, level sensor, pump, sensors, tank temperature sensor

Diesel Exhaust System, including, but not limited to:

NOx Sensors, NOx Sensor Control Module, Diesel Exhaust (HCI) Direct Fuel Injector System, associated plumbing, injectors, injector controller and calibrations

Diesel/Bio-Diesel blend Particulate Filter (DPF)

system, including, but not limited to: diesel/bio-diesel blend particulate filter assembly, diesel/bio-diesel blend oxidation catalyst assembly, exhaust system pressure differential assembly and/or plumbing, exhaust temperature sensor

Engine Assembly, including, but not limited to:

cooling fan and drive system, crankcase emission control system, evaporative emission control system, Exhaust Gas Recirculation (EGR) system, fuel delivery and injection system, glow plugs, Glow Plug Control Module (GPCM), ignition system, Positive Crankcase Ventilation (PCV) system

Engine Electronics, including, but not limited to:

coolant temperature sensor, ECM/GPCM/PCM/VCM, engine speed sensor, mass air flow sensor, calibrations/software, Exhaust oxygen sensors, Exhaust system

Intake System, including, but not limited to: air

induction components/system, ducts, filter, mass air flow sensor, intake air heater

Onboard Diagnostics Emission System

Tires and Wheels

Transaxle/Transmission Assembly

Transaxle/Transmission Electronics, including, but not limited to: calibrations/software

Transmission Control Module (TCM)

Turbo Charging System, associated equipment and controls

NOTE: The Tailpipe Rear Cooler Assembly is non-emissions related. If equipped, to ensure adequate control of exhaust temperature, the intermediate or final stage manufacturer must complete tailpipe (loose kit) installations according to the instructions provided.

- B. Cold tire pressure as listed for front and rear on the Incomplete Vehicle Label affixed to the front cover of this document must be maintained.
- C. GVWR, GAWR front and rear weight ratings as listed on the Incomplete Vehicle Label affixed to the front cover of this document must not be exceeded.



**TABLE C**

<b>Models</b>	<b>GVWR kg (lb) (RPO)</b>	<b>Engine (RPO)</b>	<b>Maximum Unloaded Vehicle Weight kg (lb)</b>	<b>Hi-Cube Van Body Type Maximum Frontal Area m<sup>2</sup> (ft<sup>2</sup>)</b>
G33503	3901 (8,600) (9E9)	4.8 L Gasoline (L20)	3479 (7,670)	6.9 (74)
G33503	3901 (8,600) (9E9)	6.0 L Gasoline (L96)	3479 (7,670)	6.9 (74)
G33503	4354 (9,600) (C6Y)	4.8 L Gasoline (L20)	3479 (7,670)	6.9 (74)
G33503	4354 (9,600) (C6Y)	6.0 L Gasoline (L96)	3606 (7,950)	6.9 (74)
G33503	4354 (9,900) (C4M)	4.8 L Gasoline (L20)	3479 (7,670)	6.9 (74)
G33503	4354 (9,900) (C4M)	6.0 L Gasoline (L96)	3606 (7,950)	6.9 (74)
G33503	4558 (10,050) (9N2)	4.8 L Gasoline (L20)	3874 (8,542)	7.9 (85)
G33503	4558 (10,050) (9N2)	6.0 L Gasoline (L96)	3874 (8,542)	7.9 (85)
G33503	4581 (10,100) (JFF)	4.8 L Gasoline (L20)	3894 (8,585)	7.9 (85)
G33503	4581 (10,100) (JFF)	6.0 L Gasoline (L96)	3894 (8,585)	7.9 (85)
G33503	5579 (12,300) (C7N)	4.8 L Gasoline (L20)	3715 (8,190)	7.9 (85)
G33503	5579 (12,300) (C7N)	6.0 L Gasoline (L96)	4742 (10,455)	7.9 (85)
G33803	4558 (10,050) (9N2)	4.8 L Gasoline (L20)	3874 (8,542)	7.9 (85)
G33803	4491 (9,900) (C4M)	4.8L Gasoline (L20)	3479 (7,670)	6.9 (74)
G33803	4354 (9,900) (C4M)	6.0 L Gasoline (L96)	3606 (7,950)	6.9 (74)
G33803	4558 (10,050) (9N2)	6.0 L Gasoline (L96)	3874 (8,542)	7.9 (85)
G33803	4581 (10,100) (JFF)	4.8 L Gasoline (L20)	3894 (8,585)	7.9 (85)
G33803	4581 (10,100) (JFF)	6.0 L Gasoline (L96)	3894 (8,585)	7.9 (85)
G33803	5579 (12,300) (C7N)	4.8 L Gasoline (L20)	3715 (8,190)	7.9 (85)
G33803	5579 (12,300) (C7N)	6.0 L Gasoline (L96)	4742 (10,455)	7.9 (85)
G33803	6441 (14,200) (C7I)	6.0 L Gasoline (L96)	5474 (12,070)	7.9 (85)
G33903	5579 (12,300) (C7N)	6.0 L Gasoline (L96)	4742 (10,455)	7.9 (85)
G33903	6441 (14,200) (C7I)	6.0 L Gasoline (L96)	5474 (12,070)	7.9 (85)

Notes:

- **Table C above applies to ONLY incomplete vehicles (RPO: &VXT).**
- On page 2 within this document, before each vehicle illustration and after the word TYPE, is a list of types of vehicles into which the incomplete vehicle is designed to be manufactured.
- \* The Maximum Frontal Area columns apply to: PART II, U.S. EPA, CALIFORNIA, AND CANADIAN EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS AND EPA/NHTSA GREENHOUSE GAS/FUEL ECONOMY REGULATIONS.
- The completed vehicle Maximum Unloaded Vehicle (Curb) Weight, and/or GVWR, and/or frontal area should not be exceeded. If any of these restrictions are exceeded, re-certification by the final stage manufacturer will be required.
- Also see the Vehicle Emission Control Information Label in the vehicle engine compartment for maximum completed vehicle curb weight, GVWR, and frontal area restrictions, if applicable.
- GVWR refers to Gross Vehicle Weight Rating.

NOTES: All Federal/California gasoline/gasoline-ethanol blend powered heavy duty vehicles (except those equipped with option NJ2, Temporary Fuel Tank) will have an evaporative emission control system that is certified for a fuel tank capacity for the vehicle as built. Intermediate or Final Stage Manufacturers wishing to add fuel tank capacity beyond the original equipment fuel tank capacity must recertify that the Modified Fuel System meets Evaporative Emission Regulations in effect at the time of original vehicle manufacture. Compliance with applicable exhaust and evaporative emission requirements is the responsibility of the final stage manufacturer.

Vehicles equipped with option NJ2 - Temporary Fuel Tank do not have an evaporative emission control system.

- D. Further compliance with applicable fuel evaporative emission requirements will be maintained providing the intermediate or final stage manufacturer completes the fuel filler neck and fuel level sender installation(s) according to “Best Practices” or “Special Applications (if applicable)” sections found within the Body Builder Manuals on the **GM Upfitter Integration website located at [www.gmupfitter.com](http://www.gmupfitter.com)**

Compliance with applicable fuel evaporative emission regulations will be maintained if no alterations are made to change material or increase the size or length or position of the following non-metallic fuel and evaporative emission hoses:

Fuel feed hoses front and rear	Fuel vapor lines at canister
Fuel return hoses front and rear	Fuel vapor lines from engine to chassis pipes
Fuel tank filler hoses to filler neck	Fuel vapor lines from fuel tank sender to: chassis pipes
Fuel tank vent hoses to filler neck	

- E. The following is applicable to models with option NJ2 – Temporary Fuel Tank. Vehicles equipped with option NJ2 - Temporary Fuel Tank do not have an evaporative emission control system.

Compliance with applicable exhaust and evaporative emission requirements is the responsibility of the final stage manufacturer. General Motors makes no representation as to the conformity with applicable exhaust and evaporative emission requirements based upon the components supplied on the incomplete vehicle.

A final stage manufacturer who retains the original equipment gasoline/gasoline-ethanol blend powered engine as certified by General Motors may purchase original equipment evaporative emission control system components (see your GM dealer) necessary for the final stage vehicle to comply with evaporative emissions requirements. It is the responsibility of the final stage manufacturer to determine the components necessary to ensure evaporative emissions compliance.

**TYPE 2 The following statement is applicable to all types of incomplete vehicles contained in this document and having an auxiliary heat exchanger installed in the engine cooling system by a subsequent stage manufacturer (unless otherwise noted on the cover).**

To prevent setting of Service Engine Diagnostic codes, installation of an auxiliary heat exchanger in the engine cooling system by a subsequent stage manufacturer must be completed following specific supplemental technical information contained within the **GM Upfitter Integration website located at [www.gmupfitter.com](http://www.gmupfitter.com)**

**SPECIFICATION FOR FILL PIPES AND OPENINGS OF 2016 AND SUBSEQUENT MODEL MOTOR VEHICLE FUEL TANKS (APPLICABLE ONLY TO CALIFORNIA GASOLINE/GASOLINE-ETHANOL BLEND POWERED VEHICLES)**

**TYPE 2** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to Title 13, California Code of Regulations Section 2235, and the "Specifications for Fill Pipes and Openings of 2015 and subsequent Model Year Motor Vehicle Fuel Tanks", dated March 22, 2012, providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the fuel filler neck(s) and any intermediate or final stage manufacturer completes the fuel filler neck installation(s) according to the instructions which are furnished in the loose parts box.

**LABELS**

**TYPE 2** The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to U.S. EPA, CALIFORNIA, AND CANADIAN EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS AND EPA/NHTSA GREENHOUSE GAS EMISSIONS/FUEL ECONOMY REGULATION labeling requirements providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the Emission Control related Information Labels that are permanently affixed. The labels are required by government regulation and must not be obstructed from view or defaced so as to impair their visibility or legibility. In addition, an EPA/DOT Fuel Economy and Environment Label may be affixed to the window glass of the incomplete vehicle as manufactured by General Motors. If equipped, the label must remain in place until this vehicle is received by the ultimate customer.

NOTE: GMT610 Cutaway vehicles built with Diesel Engines include a "Ultra Low Sulfur Diesel Fuel Only" label that is provided in the shipped loose container. The "Ultra Low Sulfur Diesel Fuel Only" label must be affixed, clearly visible, near the fuel fill opening.

# NOTES

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