

# **Tools & Equipment List - Canada**

This document exists as supplemental information to the General Motors CORE CRN Requirements. In many cases, this document will outline the general specifications required equipment will need to meet. In other instances, the only approved equipment has been indicated in the manufacturer and model columns. Please make sure you are referencing the most recent version of this information. GM maintains the right to add, delete or modify this list at any time. Participating network members are expected to comply with new requirements. The most recent version can be found at <a href="https://www.mitchell.com/products-services/collision-repair-shop-solutions/ge-network-canada">https://www.mitchell.com/products-services/collision-repair-shop-solutions/ge-network-canada</a>

Category	Specification	Manufacturer	Model	Notes
Required Frame Aligning Equipment / Bench / Rack				
Frame Aligning Equipment / Fixture Bench / Frame Rack	Capable of supporting 7000 lbs. 4 holding points minimum for rack system.	Please reference 'Corvette C8 Required Fixturing Equipment by Manf' for additional details		** Dedicated or universal fixturing equipment is required for structural repairs on Corvette C8. Minimum of one bench/rack on site. **
Measuring System	3D electronic measuring system or fixture bench system, +/- 1 mm accuracy for x,y and z, with current software subscription			For traditional frame racks a 3D electronic measuring system is required. For bench systems utilizing dedicated or universal type fixtures a 3D electronic measuring system is recommended but not required.
Porta Power Set	4 ton required			
Pulling Equipment	Minimum two towers with 10-ton capability each			
Tram Tracking Gauge	Metric scale required			
0 0				
Required Welding and MIG Brazing Equipment				
Aluminum MIG Welder	208V-240V Pulse Synergic MIG Welder, 200 Amp output capability			
	Steel Welding - AR/CO2 80/20 % mix			
Shielding Gases	MIG Braze - Ar 100%			
	Aluminum MIG - Ar 100%			
Designated equipment to perform test welds/destructive tests	Stand and tools for destructive testing of welds, Stationary vice / Vernier caliper, capable of vertical and overhead welding			
MIG Brazing Welder	208V-240V, 180 Amp output capability. May use required steel or aluminum welder with proof of separate and dedicated conductor/torch assembly, drive rolls, and gas for silicon-bronze MIG-brazing.			Wire: Er CuSi-a or CuSi-3 .08mm diameter recommended
MIG/MAG weld equipment	208V-240V, 180 Amp output capability			ER70S-3
Shunting Clamp				
Squeeze Type Resistance Spot Welding (STRSW) Equipment	STRSW listed in the GM Dealer Equipment website are approved. Please ensure you are also using the approved software ID listed with the STRSW.		Search for 'Spot Welders' at:	www.gmdesolutions.com
Expected Welding and MIG Brazing Equipment				
Auto-dim Welding Helmet	Minimum #11 shade with 3 sensors - one for each MiG/mag welder			
Welding Blankets	Minimum 2 per MIG/MAG and stress welding machine			
Welding Respirator	Canada: Must meet National standard CSA W117.2:19, Safety in Welding, Cutting and Allied Processes			
Welding Spark Paper				
Required Mechanical Repair Equipment				
A/C recovery / recycle / charging station for R134a and R1234YF	Compliant with all current regulations			Or must have access to recovery/recycling service (sublet)
Expected Mechanical Repair Equipment - Unless work is	s sublet out			
A/C Electronic Leak Detector				Or must have access to an electronic a/c leak detector (sublet) - r134a and r1234yf capable
Coolant Pressure Tester				Manual or electronic test equipment
coolant resource rester				manual of electronic test equipment
Engine Cart				Or must have access to a mobile powertrain dolly



## **Tools & Equipment List - Canada**

## **Updated December 2020**

(Replaces all previous versions)

This document exists as supplemental information to the General Motors CORE CRN Requirements. In many cases, this document will outline the general specifications required equipment will need to meet. In other instances, the only approved equipment has been indicated in the manufacturer and model columns. Please make sure you are referencing the most recent version of this information. GM maintains the right to add, delete or modify this list at any time. Participating network members are expected to comply with new requirements. The most recent version can be found at <a href="https://www.mitchell.com/products-services/collision-repair-shop-solutions/ge-collision-repair-network-canada">https://www.mitchell.com/products-services/collision-repair-network-canada</a>

Category	Specification	Manufacturer	Model	Notes
Engine Hoist				Or must have access to an engine hoist (sublet/rental)
Tire Changer				Or must have access to a tire changer (sublet)
Wheel Alignment Measuring System				Or must have access to an alignment measuring system
Wheel Alighthetic Weasuring System				(sublet) - capable of 4 wheel alignment
Wheel Alignment Rack				Ability to perform and verify four-wheel alignment either
Wheel Alighment Rack				in-house or through a sublet provider
Wheel Balancer				Or must have access to a wheel balancer (sublet)

Required Collision Repair Equipment					
Aluminum Work Area (Dedicated)	Minimum: Curtain room 23' length x 12' width x 8' height				
Aluminum Dent Repair Station	Utilize a dent extraction system specifically designed for aluminum				
Aluminum Dust Collection	Dedicated aluminum dust wet mix, dry-pneumatic portable or centrally installed			The aluminum dust collection system must be designed for collecting combustible aluminum dust. Units containing electric motors will generally be wet mix while air powered/pneumatic versions may be dry units. Either type of system may also be centrally installed or portable. Below is a link to the page.	
Correct Application equipment for seam sealer/undercoating/corrosion resistance products	See product application guidelines				
Correct Application Equipment for 2-part Adhesives	See product application guidelines				
Glass Removal / Installation Tools and Equipment				Or have access to sublet service provider	
Structural Blind Rivet gun	Electric or pneumatic; capable of pulling 1/4" structural rivets, with a minimum pulling force of 3822 lbf.				
Heat Monitoring System	Temperature crayons, stickers, or non-contact thermometer				

Expected Collision Repair Tools	
Aluminum Repair Hand Tools	Dedicated, stored separately
Cavity Wax Gun or Applicator	Aerosol is acceptable - 360 degree spray head with minimum 36" wand
Decal Remover	Eraser wheel type
Dent Puller / Stud Welder	Stud and/or washer capable
Dry guide coat	Should have at least one in each department
Heat gun	Temperature and fan control required
Panel separator/ seam buster	Manual or pneumatic
Spot Weld Drill / Cutters	6mm, 8mm and 10mm, capable of drilling UHSS

### Required General Repair Facility Equipment

□ Two or Four Post Surface Lift

Minimum 7,000 lb. capacity, two or four post lift

Expected General Repair Equipment	Expected General Repair Equipment					
Access to GM OEM Repair Procedures	Technician access to OEM service information - complimentary service					
Access to divi Delvi Repair Procedures	express subscription provided					
Air Compressor	High pressure, high volume, dry and oil free air					
Battery Charger+B78	Charger/booster/ jumper with start and boost capability					

December 2020



## **Tools & Equipment List - Canada**

This document exists as supplemental information to the General Motors CORE CRN Requirements. In many cases, this document will outline the general specifications required equipment will need to meet. In other instances, the only approved equipment has been indicated in the manufacturer and model columns. Please make sure you are referencing the most recent version of this information. GM maintains the right to add, delete or modify this list at any time. Participating network members are expected to comply with new requirements. The most recent version can be found at <a href="https://www.mitchell.com/products-services/collision-repair-shop-solutions/gen-collision-repair-network-canada">https://www.mitchell.com/products-services/collision-repair-network-canada</a>

Category	Specification	Manufacturer	Model	Notes
Battery Tester	Or must have access to a battery tester (sublet) - with load testing capability, this may only be sublet if scanning is also sublet to the same provide			
Bench mounted Vice				
Electric Extension Power Cord	Minimum 12 awg/ 20 amp with ground prong - should have at least one in each department			
Floor lack	Minimum 2 1/2 ton lifting capacity, adequate number, capable of lifting low clearance vehicles			
High-pressure Washer				
Jack Stands	Minimum 3 ton capacity (per pair)			
Lordue wrench	Capable of reading in newton meters and pound feet, accurate from 10nm to 272nm (7 lb./ft to 200 lb./ft) - annual calibration			
Vacuum Cleaner				
Wheel Dollies	Minimum 1500 lb. Capacity (each)			

equired Paint & Refinishing Equipment					
Paint booth / Paint forced curing system	Meets the specifications of utilized GM approved refinish system				
Paint mil Spec Gauge	A paint gauge capable of accurately measuring paint film thickness on non- metal substrates which is nondestructive to the paint film.	Defelsko	200b1-e Positector	Or equivalent	
Paint System	Utilize a GM approved refinishing system as outlined in GMW15406 globally approved refinish materials and provide proof of product training				

### Expected Paint & Refinish Equipment

Compressor Air dryer		Refrigerant type, desiccant type or membrane type acceptable
Bumper stand		
Cart for masking paper		
Color formula data+B9	Computerized, Capable of VOC tracking	
Dedicated mix room	Must have exhaust system compliant with local regulations - only required where also required by local code.	
Paint station with scales	As required by paint supplier, scale must be capable of interface with mix computer	
Painter suits and protective gear	As specified by refinish maker	
Polishing set	Adequate number of buffers/polishers - eclectic or pneumatic acceptable	
Spray gun (for base coat)	Capable of high transfer efficiency, must meet local regulations	
Spray gun (for clear coat)	Capable of high transfer efficiency, must meet local regulations	
Spray gun (for primer)	Capable of high transfer efficiency, must meet local regulations	
Spray gun washer	Enclosed system or pps style cups with written policy for manual gun cleaning	
Spray stand (fender / door)		
Spray stand (hood / trunk)		

#### Technician Tools

### Expected Technician Tools

Air duster gun

Canada: The Canadian Centre for Occupational Health and Safety (CCOHS) approved



COLLISION REPAIR NETWORK

# **Tools & Equipment List - Canada**

This document exists as supplemental information to the General Motors CORE CRN Requirements. In many cases, this document will outline the general specifications required equipment will need to meet. In other instances, the only approved equipment has been indicated in the manufacturer and model columns. Please make sure you are referencing the most recent version of this information. GM maintains the right to add, delete or modify this list at any time. Participating network members are expected to comply with new requirements. The most recent version can be found at <a href="https://www.mitchell.com/products-services/collision-repair-shop-solutions/gen-collision-repair-network-canada">https://www.mitchell.com/products-services/collision-repair-network-canada</a>

	Specification	Manufacturer	Model	Notes
Body hammer assortment				
Chisels				
Clip remover				
Disk grinder				
Dolly assortment				
Dual action sander (random orbital sander)				
General hand tool set				
Hand drill (pneumatic or electric)				
Hand saw (pneumatic or electric)				
Metric measuring tape (convex)	Metric scale required			
Pneumatic / electric impact gun				
Pneumatic / electric ratchet				
Punch tool set with centering punch				
Rubber hammer				
Spoon				
Storage for removed parts (cart, box)				
Vise grip set				
Expected Personal Protection Equipment Dust masks	Dust/mist mask			
Dust masks				
Eye and face protection	Safety goggles / Safety glasses / Face shield Glasses must meet Canada: CSA Z94.3			
	Abrasion resistant			
Hand protection/gloves	Chemical resistant			
Hallu protection/gloves	Work gloves			
Hearing protection	Ear plugs / Ear muffs			
Paint suit	One-piece hooded			
i ann suit	Fresh air supplied for painting			
Respirators	Canada: CCOHS certified for all others			
Diagnostic Scan			1	·
	e refer to GM's Position Statement on scanning and tools GM supports found he	ere: https://www.genuinegmparts.com	/pdf/positionstatements/pre-post	-scan-collision-vehicles.pdf
Not all scan tools of software read all DTC codes. Please				
	a 3rd party please ensure that they follow the below protocol.			
	a 3rd party please ensure that they follow the below protocol. Diagnostic Scanning	Company	Model	
If you sublet your scanning and calibration work out to a			<i>Model</i> Global Diagnostic System 2 or	Runs GDS-2 locally (on a computer on-site with the
If you sublet your scanning and calibration work out to a GM Approved Scan/Calibration Options	Diagnostic Scanning	General Motors		Runs GDS-2 locally (on a computer on-site with the vehicle)
If you sublet your scanning and calibration work out to a GM Approved Scan/Calibration Options Diagnostic Scan Tool that can capture diagnostic	Diagnostic Scanning Utilizing the Multiple Diagnostic Interface 2 (MDI-2) or any SAE J2534		Global Diagnostic System 2 or	

This list is subject to change at GM's discretion.

□ Signifies Audit Item



# **C8** Required Fixturing Equipment

Car-O-Liner	Frame Benches	REFERENCE NUMBER
	BenchRack 4200*	NA-34573-KIT
	BenchRack 5000*	NA-34639-KIT
	BenchRack 5500*	NA-34640-KIT
	BenchRack 6300*	NA-33907-KIT
	Quick 42*	46642
	Anchoring & Fixturing	REFERENCE NUMBER
	EVO 1 Basic Anchoring System	35413
	EVO 2 Extended Anchoring System	35419
	EVO3 Universal Fixturing System	35719
	3D Electronic Measuring **	REFERENCE NUMBER
	Car-O-Tronic Vision2 X3	46733

Celette	Frame Benches	REFERENCE NUMBER
	Sevenne, Sevenne XL*	N/A
	Griffon, Griffon XL*	N/A
	Rhone, Rhone XL*	N/A
	Smart Rhone*	N/A
	EQUIPMENT DESCRIPTION	REFERENCE NUMBER
	Crossmembers (set of 6)	955A.9412
	22 MZ Towers (with pins)	MZ450.010
	MZ Trolley	MZ450.907
	MZ Plus kit	MZ2500.000
	Cameleon Premium	CAM02.162
	Cameleon Side Body kit	CAM04.032
	Additional Straight Cross Member	955A908
	3D Electronic Measuring **	

\* Minimum of one bench on site

\*\*3D Measuring system, Accuracy +/- 1mm, Current model year software, Pre/post measure documentation



# **C8** Required Fixturing Equipment

Car Bench International	Frame Benches	REFERENCE NUMBER
	Manta*	CBIMANTA
	Muraena*	CBIMURAENA
	Anchoring & Fixturing	
	PACDIMA08 8 point system	minimum 8 required
	PACDIMA12 12 point system	12 point optional
	C281 Side,Upper	
	3D Electronic Measuring **	

Spanesi	Frame Benches	REFERENCE NUMBER
	106 Bench*	5MTR
	106 EXT Bench*	6MTR
	Anchoring & Fixturing	
	Superstar Universal Fixturing	N/A
	3D Electronic Measuring**	

\* Minimum of one bench on site

\*\*3D Measuring system, Accuracy +/- 1mm, Current model year software, Pre/post measure documentation



# **C8** Required Fixturing Equipment

Chief	Frame Racks	REFERENCE NUMBER
	Excelerator	
	EZ Liner, Standard, S21/S21M	
	18' Impulse, or Impulse Tilt	
	20' Impulse or Impulse Tilt	
	18' Impulse VHT	
	20' Impulse VHT	
	18' or 20' E-VHT	
	Goliath	
	Fuzion	
	Titan-360 21 series	
	Anchoring & Fixturing	REFERENCE NUMBER
	C8 complete structural holding System (Complete) or	CK300036
	1-Structural Holding Base w/tool board and cart	CK300021
	1-GM Base w/tool chest	CK300037
	1-Corvette C8 w/ tool chest	CK300038
	1-Upper Body Structural Holding	CK300039
	Additional Bases if needed (minumum of 10 required)	502128
	3D Electronic Measuring**	

\* Minimum of one bench on site

\*\*3D Measuring system, Accuracy +/- 1mm, Current model year software, Pre/post measure documentation