

**Autobody/Collision and Repair Technology/Technician
CIP 47.0603
Task Grid**

Proficiency Level
Achieved:
(X) Indicates
Competency
Achieved to Industry
Proficiency Level

Unit/Standard Number		
	Secondary Competency Task List	
100	SAFETY	
101	Follow general shop safety rules.	
102	Use of personal safety devices and clothing.	
103	Locate and identify fire extinguishers.	
104	Locate and operate emergency switches.	
105	Explain fire and tornado drill procedures.	
106	Demonstrate proper handling of hazardous materials.	
107	Follow proper chemical disposal techniques.	
108	Operate shop and spray area ventilation systems.	
109	Follow rules for care and safe use of hand tools.	
110	Demonstrate safe and proper use of power tools and equipment.	
111	Identify the proper methods and options for safely moving vehicles in the shop area.	
112	Identify information on Safety Data Sheets (SDS).	
200	VEHICLE DESIGN AND CONSTRUCTION	
201	Identify the differences between various vehicle construction types.	
202	Identify and describe structural and nonstructural panels of a unibody vehicle.	
203	Determine the various materials used in vehicle construction.	
300	PANEL REPLACEMENT AND ALIGNMENT	
301	Identify the principles of full or partial panel replacement (bonded, bolted, or welded).	
302	Remove, reinstall, and align bolt on panels.	
303	Remove and reinstall wheel/tire assembly.	
304	Aim headlights using mechanical aiming equipment.	
305	RESERVED	
400	TRIM AND HARDWARE	
401	RESERVED	
402	Determine types of fasteners.	
403	Remove and replace adhesive-held molding and trim.	
404	Remove and install seats.	
405	RESERVED	
406	Remove and install interior parts and hardware.	
407	Remove and install exterior parts and hardware.	
408	Remove and install exterior trim, moldings, and emblems.	

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500	METAL FINISHING	
501	Select proper metal straightening tools.	
502	Evaluate stretched metal for repair.	
503	Demonstrate weld-on nail gun to repair sheet metal.	
504	Repair metal to meet industry standards.	
600	BODY FILLERS	
601	Select correct body filler and tools.	
602	Prepare surface for body filler.	
603	Mix and apply body filler.	
604	Sand body fillers to correct contour.	
700	GLASS AND HARDWARE	
701	Remove and reinstall a door window regulator.	
702	Remove and reinstall moveable door glass.	
703	Describe the removal and replacement of stationary glass.	
800	STRUCTURAL COMPONENT REPAIR AND DAMAGE ANALYSIS	
801	Classify the various types structural damage a vehicle can sustain.	
802	Interpret body dimension specifications.	
803	Use a tram gauge to diagnose vehicle length and width damage.	
804	Diagnose vehicle height with datum line gauges.	
805	Identify various measuring systems.	
806	Identify repair methods for vehicle with diamond damage, twist, sag side swag or mash.	
900	STRUCTURAL STRAIGHTENING	
901	Mount and anchor vehicle to a pulling system.	
902	Prepare vehicle for measuring and analysis.	
903	Prepare vehicle for structural alignment.	
1000	CORROSION PROTECTION	
1001	Identify corrosion causes and OEM corrosion protection.	
1002	Apply repair methods for corrosion protection.	
1003	RESERVED	
1004	Demonstrate the application of seam sealers.	

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1100	WELDING	
1101	Identify different methods of attaching components (MIG welding, squeeze type resistance spot welding (STRSW) riveting, structural adhesive, silicon bronze, etc.)	
1102	Demonstrate personal safety practices.	
1103	Set up and tune the MIG welder.	
1104	Complete a butt joint with backing in various welding positions.	
1105	Complete an overlap weld in various positions.	
1106	Complete a plug weld in various positions.	
1107	Define protection of adjacent panels, glass, vehicle interior, etc. from welding and cutting operations.	
1200	CUTTING PROCESSES	
1201	Identify cutting processes.	
1202	Demonstrate sheet metal cutting processes.	
1300	SURFACE PREPARATION, REFINISHING, AND EQUIPMENT	
1301	Explain various environmental regulations.	
1302	Locate hazardous warning information.	
1303	Select and inspect personal protection equipment (PPE).	
1304	Demonstrate safe painting practices.	
1305	Identify personal health and safety hazards.	
1400	AUTOMOTIVE FINISHES	
1401	Describe the difference between paint systems.	
1402	Describe paint defects - causes and cures.	
1403	Identify various undercoats.	
1404	Identify various topcoats (single stage, basecoat/clearcoat, tricoat, quadcoat).	
1500	SURFACE PREPARATION	
1501	Demonstrate proper steps to pre-wash entire vehicle.	
1502	Use wax and grease remover.	
1503	Demonstrate proper use of sanding and featheredging techniques.	
1504	Wet sand and featheredge.	
1505	Apply suitable metal treatments.	
1506	Obtain the vehicle paint code.	
1507	Apply undercoats.	
1508	Prepare panels for blending.	
1509	RESERVED	
1510	Identify masking materials.	

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1511	Perform masking.	
1512	Select the appropriate abrasive.	
1600	REFINISHING EQUIPMENT AND PAINT AREA	
1601	Operate the spray booth.	
1602	Maintain the paint mixing area.	
1603	Set up, test and adjust spray guns.	
1604	Inspect, clean, and determine conditions of spray guns and equipment.	
1605	Select and use the National Institution of Safety and Health (NIOSH) approve personal painting/refinishing respirator systems.	
1700	REFINISHING OPERATIONS	
1701	Prepare surface for topcoat system (degrease and tack).	
1702	Apply primer-sealer.	
1703	Apply single-stage finish.	
1704	Apply basecoat/clearcoat finish.	
1705	Describe the application of stone chip-resistant coating to lower body areas.	
1800	BLENDING OPERATIONS	
1801	RESERVED	
1802	Blend basecoat/clearcoat finish.	
1803	Tint and blend color coat.	
1900	DETAILING	
1901	Remove overspray.	
1902	Clean exterior of vehicle.	
1903	Clean interior of vehicle.	
1904	Apply decals and stripes.	
1905	Demonstrate color sanding and polishing techniques.	
1906	Clean body openings.	
1907	Clean exterior and interior glass surfaces.	
2000	ESTIMATING DAMAGE ANALYSIS	
2001	Identify vehicle by VIN (vehicle identification number).	
2002	Collect vehicle and customer data.	
2003	Use collision estimating guides.	
2004	Identify different types of vehicle damage (direct and indirect).	
2005	Indicate repair and replace decisions.	

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2006	Prepare an estimate/repair sequence/calculate repair costs.	
2100	PLASTIC REPAIR	
2101	Identify plastic to make repair decisions.	
2102	Use plastic repair methods (adhesives and welding).	
2103	Repair plastics with two-part adhesives, with and without reinforcement.	
2200	RESTRAINT SYSTEMS	
2201	Research auto manufacturers' recommended safety procedures to prevent accidental deployment of supplemental restraint systems.	
2202	Identify supplemental restraint systems.	
2203	Remove and reinstall seat belt components.	