

APPENDIX D | BMW CCRC PROGRAM TOOLS, EQUIPMENT & MATERIAL REQUIREMENTS.



The **Ultimate**
Driving Machine®

TABLE OF CONTENTS

| | |
|--|---|
| 1. INFORMATION TECHNOLOGY REQUIREMENTS | 3 |
| 2. BODY SHOP TOOLS, EQUIPMENT & MATERIAL REQUIREMENTS | 3 |
| A. FRAME/UNI-BODY ALIGNMENT AND DIMENSIONING SYSTEM | 3 |
| B. WELDING, BONDING & RIVETING EQUIPMENT | 4 |
| C. ALUMINUM REPAIR EQUIPMENT | 4 |
| D. MISCELLANEOUS BODY SHOP EQUIPMENT | 4 |
| E. MATERIAL HANDLING BODY SHOP REQUIREMENTS | 4 |
| F. BMW i TOOLS & EQUIPMENT REQUIREMENTS LEVEL 1 | 4 |
| 3. BETAG INNOVATION STEEL & ALUMINUM BODY REPAIR SYSTEMS | 4 |
| 4. PAINT SHOP TOOL, EQUIPMENT & MATERIAL REQUIREMENTS | 5 |
| A. REFINISH MATERIALS | 5 |
| B. SPRAY BOOTH | 5 |
| C. SPRAY EQUIPMENT | 6 |
| D. MISCELLANEOUS PAINT SHOP EQUIPMENT | 6 |
| E. MATERIAL HANDLING PAINT SHOP REQUIREMENTS | 6 |

1. INFORMATION TECHNOLOGY REQUIREMENTS

- High speed Internet service
- S-Gate access
- DEMS administrative access
- AIR repair instruction access on all terminals
- Separate computer terminal(s) for AIR repair instruction access with printer located in or convenient to technicians that work in the metal shop
- Computerized estimating system

2. BODY SHOP TOOLS, EQUIPMENT & MATERIAL REQUIREMENTS

A. FRAME/UNI-BODY ALIGNMENT AND DIMENSIONING SYSTEM

Any one of the following systems:

- Car Bench with dedicated or universal fixtures
- Car-O-Liner bench with Car-O-Tronic/Vision electronic measuring system with either EVO 1, 2, 3 or Car-O-Flex universal fixture system, B66 or B76-77 side supports
- Celette bench with dedicated fixtures or NAJA electronic measuring system along with positioning tool NA.1000

B. WELDING, BONDING & RIVETING EQUIPMENT

Please refer to the most up-to-date CCRC required welding, bonding & riveting tooling/equipment information at <http://www.bmwwholesaleconnect.com> under the CCRC section.

C. ALUMINUM REPAIR EQUIPMENT

Please refer to the most up-to-date CCRC required aluminum repair tooling/equipment information at <http://www.bmwwholesaleconnect.com> under the CCRC section.

D. MISCELLANEOUS BODY SHOP EQUIPMENT

Please refer to the most up-to-date CCRC required tooling/equipment information at <http://www.bmwwholesaleconnect.com> under the CCRC section.

E. MATERIAL HANDLING BODY SHOP REQUIREMENTS

- Storage shelving and racks for clear floor space and safe parts retrieval
- Refrigerant recovery/recycling equipment for R12, R134 & R1234yf
- Licensed waste material removal/recovery system
- Welding fume extraction equipment

F. BMW i TOOLS & EQUIPMENT REQUIREMENTS LEVEL 1

Please refer to the most up-to-date CCRC required BMW i tooling/equipment information at <http://www.bmwwholesaleconnect.com> under the CCRC section.

3. BETAG INNOVATION STEEL & ALUMINUM BODY REPAIR SYSTEMS

BMW NA approved BETAG repair systems are the required aluminum and steel repair system for outer panel repair. The aluminum and steel repair systems from BETAG Innovation have been proven to provide the ability to perform high-quality, small and medium damage repairs that meet BMW NA's stringent repair standards. With the ability to reduce structurally invasive repairs, which often lead to additional cost and time of repair, you will lower your cycle time and increase customer satisfaction.

4. PAINT SHOP TOOL, EQUIPMENT & MATERIAL REQUIREMENTS

A. REFINISH MATERIALS

CCRCs are recommended to use BMW Group ColorSystem paint and refinish materials on all work performed on BMW vehicles at their collision repair location. If using any other paint supplier, a copy of the supplier's paint technician training certificate must be provided to BMW NA in order to receive training credit. Paint supplier training is typically valid for 24 months.

B. SPRAY BOOTH

Down-draft spray booth and oven must have the following minimum specifications:

- 14,000 CFM (or higher) air flow capacity
- 750,000 BTU (or higher) heating source
- Interior lighting system: 1200 LUX output, color corrected, with a color rendering
- Index of at least 96 CRI
- Three-stage air filtration system
- Air accelerators recommended for water-borne applications refrigerant, desiccant, or membrane air filtration/drying unit
- Air supply piping in good condition (recommended plastic/aluminum/copper piping)
- Air blowers/dryers retrofitted hand-held/stand mounted
- Quality spray hose: minimum diameter 3/8"
- Infrared dryer, short wave or medium wave technology
- DA sanders: 5mm (3/16") orbit
- DA sanders: 3mm (3/32") orbit

C. SPRAY EQUIPMENT

- 2X spray guns for HC base coat per booth
- 1X spray gun for clear coat

D. MISCELLANEOUS PAINT SHOP EQUIPMENT

- Flammable liquid storage cabinet

E. MATERIAL HANDLING PAINT SHOP REQUIREMENTS

- Licensed waste solvent removal/recovery system

CCRCs must follow all applicable local, state, and federal government laws, regulations, and restrictions with regards to paint application, storage, and disposal.