BMW Club
Southern Alberta

# Joy of Driving

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## BMW Club of Southern Alberta

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Mailing Address: PO Box 75012 Cambrian, Calgary, Alberta T2K 6J8
General e-mail: email@bmwcsa.ca
Website: www.bmwcsa.ca
Facebook: BMW Club of Southern Alberta (@bmwcsa96)
Instagram: @bmwcsa96
Twitter: @bmwcsa96
YouTube: BMW Club of Southern Alberta

## Freude am Fahren [Joy of Driving] Newsletter

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Ideas and opinions are those of the authors, without authentication by or liability to the BMWCSA, its Editors, Directors or Officers. BMWCSA reserves the right to modify or edit any material or submissions.

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## Directors and Officers

Please limit phone calls to between the hours of 9:00 AM and 9:00 PM

**President & Director**
Greg Walsh
403-286-2248
walsh@bmwcsa.ca

**Secretary & Director**
Rainer Kahl
kahl@bmwcsa.ca

**Directors At Large**
Ray Hansen
Heather Mercier
Gord Anderson
Brian DeBoeck

**Welcome Committee**
Heather Mercier
Robert Norum
welcome@bmwcsa.ca

**Newsletter Editor, Vice-President & Director**
Chris Tworek
403-238-8049
tworek@bmwcsa.ca

**Social Media Manager & Director**
Victor Yuen
victor@bmwcsa.ca

**Membership Coordinator**
Glen Cook
403-274-8716
membership@bmwcsa.ca

**Motorsport Coordinator**
Gary Coleman
coleman@bmwcsa.ca

**Treasurer & Director**
Jeff Trost
trost@bmwcsa.ca

**National Club Liaison & Director**
Greg Walsh
walsh@bmwcsa.ca

**Event Coordination**
Greg Walsh
events@bmwcsa.ca

**Webmaster**
Michelle Belanger

**Newsletter Production Editors**
Margaret Cook
Michelle Belanger

**On the cover:** Reunite with the Road—postponed Father's Day Drive group on July 5 under a beautiful blue Alberta sky. Photo by Chris Tworek

# Kalender

| Reunite with the Road | |
|---|---|
| **August 1** | **Cars, Coffee & Chat** (CC&C), 10:00 AM to Noon at Ricky's All Day Grill, Deerfoot Meadows, #860, 8180 11 St SE. |
| **August 12** | **Social & General Meeting** – social starts at 7:00 PM. Meeting from 7:30 pm - 10:00 pm. Location TBA |
| **August 16** | **Annual BBQ,** 3:00-7:00 PM. **Registration is required**. **Ticket Sale Ends: August 6, 2020 at 11:00 PM** Covid protocols will be followed throughout the event. See full details online at *Eventbrite*, including items to bring with you, and register online early at: https://www.eventbrite.ca/e/2020-bmwcsa-annual-bbq-tickets-113276828042 |
| **September 5** | **Cars, Coffee & Chat** (CC&C), 10:00 AM to Noon at Ricky's All Day Grill, Deerfoot Meadows, #860, 8180 11 St SE. |

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# Membership in BMWCSA

Membership is a family affair with many of our events devised with family participation in mind. The family membership of $60 for one year, $105 for two years and $150 for three years covers all household family members. You do not have to own a BMW to be a Club member!

To join the club, download the membership form from the link below and fill in your details: http://bmwcsa.ca/resources/Membership-Application.pdf For more info, or to submit your membership application, please email Glen Cook or Victor Yuen at: membership@bmwcsa.ca

Membership privileges include newsletters and participation in many social and motoring activities, plus a 15% discount on parts & lifestyle accessories at BMW Dealerships. After one year of membership, you will also enjoy a 2% Rebate off MRSP on either a new car or motorcycle from BMW Canada. This discount is based on MRSP and not on your negotiated price. Many of our advertising sponsors, whose ads appear in our newsletters, also offer discounts to members for parts and services. Please remember to show your BMWCSA card and identify yourself as a club member when purchasing parts, accessories, and service.

We are pleased to welcome these new members to our Club:
Jun Tan (2015 M3)
Chelsey Cabaj & Robert Radovanovic (1988 M6, 2007 328xi Wagon)
Francois Parent (2013 X5 E70 35i)

# President's Corner–Greg Walsh

With summer upon us, we are again experiencing opportunities to enjoy each other's company in the great outdoors. BMW's latest slogan is "Reunite with the Road" and we tried our best!

Our first CC&C at our new location, Ricky's in Deerfoot Meadows, on July 4th saw a great turnout of old friends and new faces. Their outdoor patio adjacent to a spacious parking lot is ideal for our Show & Shine gatherings.

▼A few of the cars at CC&C on July 4th

The belated Father's Day Drive on Sunday, July 5 through the Highwood Pass to Peter Lougheed Park had 24 BMWs with over 50 folks enjoying sun, scenery and comradery. Our lunch stop in an outdoor amphitheatre was just right for socializing at the appropriate distances.

▼*Father's Day Drive - Reunite with the Road!*

▼*We had the amphitheatre at Peter Lougheed to ourselves*

▲ *Nothing beats an Alberta drive!*

Your Club is forging ahead with planning for this year's BBQ on Sunday, August 16. There will be the usual Show & Shine with a chance to exhibit your pride and joy, a silent auction full of great gifts from our sponsors, and of course the Wine'd-Up raffle. We will be at our usual family acreage near Priddis—my sincerest thanks to our hosts—and this year we are contemplating an expanded tent to accommodate appropriate distancing if the weather is uncooperative. This is a free family event, but numbers may be limited (due to continually changing Covid rules) so sign up soon. Register and see full details at: https://www.eventbrite.ca/e/2020-bmwcsa-annual-bbq-tickets-113276828042

A good friend of our Club, Gary Bembridge, Parts Manager at Calgary BMW, has taken early retirement. Gary was with Calgary BMW for nigh on two decades during which he cheerfully helped many of us with modifying our rides and style. He has moved to Leduc to be close to his grandson and teach him the finer points of golf and hockey. We wish Gary all the best.

The new Parts manager at Calgary BMW is another long-time friend, Allan Calagui. Drop in to say 'Hi' to Allan and get the help of his extensive knowledge in upgrading your Bimmer.

Our Club succeeds because its members step forward. Thank you all!

I wish you Joy of your BMW!

*Greg Walsh, President*

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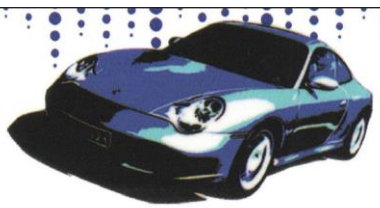

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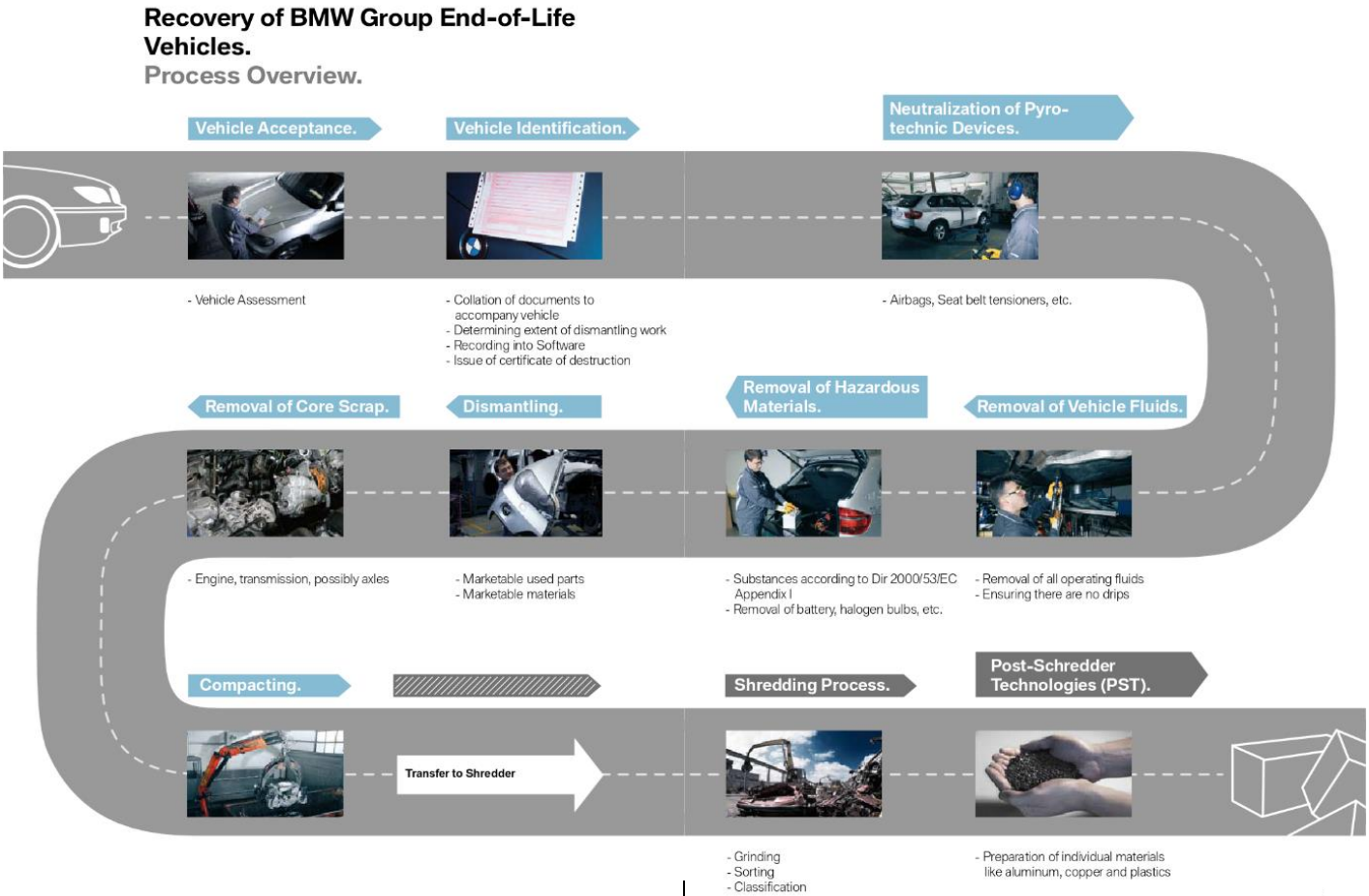
# BMW Cars Recycling and Disposal




BMW takes sustainability quite seriously and has developed a holistic approach since their first official Recycling and Dismantling Center was opened near Munich in 1994. While focussed on BMW, a partnership agreement now allows BMW's 200 drop-off points for 'end-of-life' cars to accept Renaults, Fiats and MG Rovers as well.

Most of us take the "Pick-Yur-Parts junkyard" as a model for current creative recycling: put containment under the land to catch liquids, allow customers to use their own labour and tools to strip off what is still useable, and then crush the rest for a trip to a smelter where, perhaps, some of the metals can be separated and salvaged. That is a nice start, but BMW is light years ahead of that model.

The BMW Recycling and Dismantling Centre (RDC) is currently the world's leading facility of its kind and is an authorized treatment facility. In addition, the RDC also provides important information for dismantling and drainage techniques and input back into the design process.

BMW has a recovery target of 95% which is consistent with the EU regulation that started at 85% in 2008 and moved to 95% by 2015. The EU regulation also bans the use of certain materials like Lead and Chromium (VI) and outlines requirements for the secondary processing of vehicle components and fluids. This is a prerequisite for the approval of all new vehicle types from 2008 onwards.

BMW starts at the drawing board—sustainability is a key word at every point in process chain, from the development of energy-saving alternative vehicle concepts and environmentally sound production processes to recycling.

Life Cycle Assessment (LCA) is a key BMW design tool. It takes into account the ecological implications of vehicle components throughout the life cycle. This involves assessing alternative materials and component concepts from the start of the development process and throughout the entire product life cycle, from the retrieval of raw materials through the utilization phase to recovery. The environmental impact is analyzed on the basis of categories such as global warming or acidification potential.

BMW sees used cars as an important source of secondary raw materials and that recycling makes a meaningful contribution to the conservation of natural resources. As example, 15% of BMW plastic parts are made of recycled materials, and used in underbody paneling, rear shelves, fuel tanks and wheel housings. Another example is the use of natural fibers in door panels and sound-proofing as they represent a high-grade alternative to synthetic fibers. They have good mechanical properties, are light in weight and strong and can be recycled.

However, sooner or later, that bright shiny toy, finally reaches the end of its useful life. The steps shown below happen after the car is dropped off for recycling. The neatest part are the last steps of shredding and post-shredder technology. The compacted body shell is shredded and then ground down to particles.

Magnetic separators and cyclones then do a rough sort on the particles as to material type. Flotation separation, eddy currents, multi-level classification and screening are used to fine tune the sorting. This ensures correct separation and consistent quality allowing easy re-use of the recovered raw material.

*Source: BMW Group*

# 2021 BMW 5 Series Sedan:

## Seventh Generation / Six Decades of Production

**The 7th Generation**

**2021 BMW 5 Series Lineup:**

- **248 hp 530i xDrive Sedan**
- **288 hp 530e xDrive PHEV Sedan** (180 HP ICE with 111 HP Electric Motor)
- **335 hp 540i xDrive Sedan** with 48V mild hybrid system
- **523 hp M550i xDrive Sedan**
- **617 hp M5** (only the Competition model will be available in Canada)

**BMW TwinPower Turbocharged engines**

All BMW four, six, and eight-cylinder engines feature BMW's latest TwinPower turbocharging technology which incorporates a single, twin-scroll turbocharger on the 530i xDrive and 530e xDrive four-cylinder models, and 540i Xdrive six-cylinder models and two, twin-scroll turbochargers on the V8 M550i xDrive Sedan.

All engines feature High Precision fuel injection operating at 350 bar (5,076 psi), VALVETRONIC fully variable valve timing, and double-VANOS variable camshaft timing.

The 2021 BMW **530i** xDrive Sedan is powered by a 2.0-liter four-cylinder TwinPower Turbo variant of BMW's modular engine family. This engine produces 248 hp and 258 ft-lbs. of torque propelling the 530i xDrive Sedan from 0 to 100 km/h in 6.0 seconds and reach a top speed of 210 km/h when equipped with all-season tires and 250 km/h when equipped with performance tires.

The 2021 BMW **530e** xDrive Sedans with **plug-in-hybrid drivetrain** receive enhanced performance from the latest generation of eDrive technology.

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A 180 hp 2.0-liter gasoline engine is complemented by a 111 hp electric drive unit, integrated into the 8-speed Steptronic transmission. When the Driving Control switch and transmission are set to SPORT, a new XtraBoost feature offers an additional 40 hp for up to 10 seconds when the throttle is depressed to the kickdown position. The combined power and torque of the new 530e xDrive Sedans is 288 hp and 310 ft-lbs of torque, an increase of 40 hp over previous 530e models.

A high-voltage 34 Ah / 12 kWh gross (9.09 kWh net) lithium-ion battery module provides the storage capacity for electric-only and performance-oriented driving. The 530e xDrive Sedan also features Acoustic Protection for Pedestrians, which uses an exterior speaker system to generate an unmistakable sound created specifically for electrified BMWs operating in electric-only mode at speeds up to 30 km/h.

With the addition of XtraBoost functionality, the 530e xDrive Sedan can accelerate from 0 to 100 km/h in 5.8 seconds and reach a top speed of 210 km/h when equipped with all-season tires and 235 km/h when equipped with performance tires.

The BMW **540i** xDrive Sedan is powered by a 3.0-liter six-cylinder TwinPower Turbo engine producing 335 hp and 332 ft-lbs. of torque with **48V mild hybrid technology**. This iconic inline-six engine variant allows the 540i xDrive Sedan to sprint from 0 to 100 km/h in 4.7 seconds and reach a top speed of 210 km/h when equipped with all-season tires and 250 km/h when equipped with performance tires.

A new mild hybrid system with a 48V starter-generator offers enhanced performance, better fuel economy and improved driving comfort in the six-cylinder BMW 5 Series. The 48V starter-generator and a second battery greatly increases the ways in which Brake Energy Regeneration can be utilized. When the driver releases the accelerator, the generator transforms the kinetic energy into electricity to be stored in the 48V battery. Energy recuperation increases more when the Driving Experience Control switch is set to SPORT mode. The additional deceleration generated over and above the engine braking effect is also harnessed when the brakes are applied. A specially designed braking system previously found in BMW's plug-in-hybrid models enables the combination of electrical and mechanical deceleration to be deployed as required and with maximum efficiency at all times.

The recuperated energy accumulating in the 48V battery is supplied to the 12V electrical system and powers the lights, steering, power windows, ventilation, audio system and seat heating. In addition, the stored energy can be used to provide additional drive power when it is fed back to the 48V starter-generator.

The starter-generator then acts likes an electric drive unit that assists the engine, allowing it to operate within a more efficient range as frequently as possible and ensuring there are fewer peaks in fuel consumption. When the car is accelerating, the 48V starter-generator is able to offer the driver an electric boost effect that can instantly put an extra 11 hp on tap for more dynamic power delivery. The result is a sharper response off the line and quicker bursts of speed when accelerating.

A special feature of the mild hybrid system is the ability to charge the 48V battery from the generator while driving at a constant speed. This method of generating electricity by raising the engine's load point is only employed when the battery charge is low and during phases when it does not have a detrimental effect on engine efficiency.

The 48V starter-generator has the additional benefit of allowing the engine to be switched off and started again very swiftly with less vibration. The result is improved comfort when the Auto Start Stop and coasting functions are in use. When the driver brakes for a stop, the engine can be switched off as soon as the car's speed drops below a certain km/h. And if the coasting function is activated, the engine is also completely shut off rather than just being decoupled from the drivetrain. The system is operational at speeds from 25 to 160 km/h and is available in ECO Pro and Comfort modes.

The 4.4-liter V8 TwinPower Turbo engine in the **M550i** xDrive Sedan produces 523 hp and 553 ft-lbs. of torque propelling the sedan from 0 to 100 km/h in a scant 3.8 seconds and allows it to reach a top speed of 210 km/h when equipped with all-season tires and 250 km/h when equipped with performance tires.

The heartbeat of the **BMW M5 Competition** is the latest-generation 4.4-litre, twin-turbocharged V8 engine with an output of 617 hp at 6,000 rpm and peak torque of 553lb-ft on tap between 1,800 and 5,860 rpm. The BMW M5 Competition sprints from 0 –100 km/h in 3.3 seconds with a top speed of 250 km/h – or 305 km/h with the optional M Driver's Package specified. The V8 engine utilizes optimized turbochargers with maximum injection pressure of 350 bar. This allows shorter injection times and improved atomization of fuel, for faster engine response as well as more efficient mixture preparation.

**The Oil supply system is designed for track driving.** The oil pan has a small front sump and an indirect charge air-cooling system, which is extremely effective despite taking up little space. The oil supply system uses a fully variable, map-controlled pump and has been designed for outings on the racetrack, where it can handle very high levels of longitudinal and lateral acceleration.

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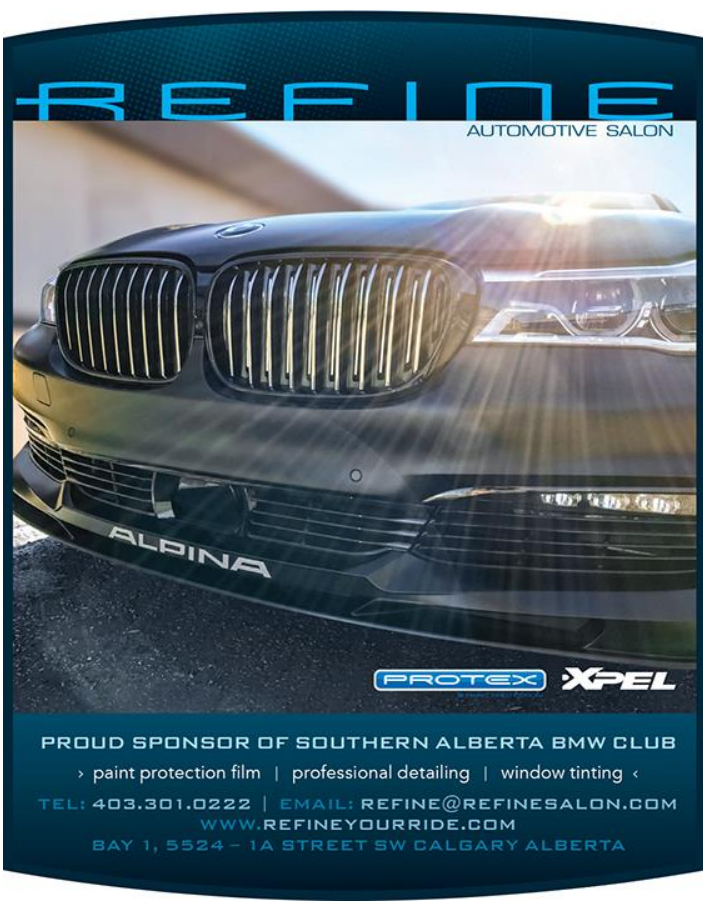

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**8-speed Steptronic automatic transmission**

The latest version features a new, optimized hydraulic control system for improved response and efficiency. A new generation of torsion dampers that reduce rotational irregularities within the powertrain helps to enhance both driving comfort and shift smoothness. Integral twin-damper systems for isolating vibrations reduce the degree of slip at the torque converter lock-up clutch.

The **Steptronic Sport** transmission, standard in the 540i xDrive and M550i xDrive Sedans, offers even sportier shift characteristics and faster gear changes while shift paddles on the steering wheel allow for rapid manual gear changes. The eight-speed Steptronic Sport transmission also includes a Launch Control function for powering off the line with optimal traction.

Intelligent connectivity enables the 8-speed automatic transmission to adapt its shift strategy according to the route and driving situation. Working with the standard navigation system, the 8-speed Steptronic transmission uses data from this system and from the optional Active Cruise Control system's radar sensor. This makes it possible for the transmission to avoid unnecessary gear changes when negotiating a series of fast corners and, when approaching a vehicle ahead for example, to shift down early in order to use the engine braking to scrub off speed.

On the M5, the **Drivelogic** rocker switch on the gear selector allows three modes for efficient, sporty or dynamically intense track driving with extremely rapid gearshifts. The driver can use both the selector lever and the shift paddles on the steering wheel to take control of gear changes manually. In manual mode, they can also execute multiple downshifts to the lowest available gear, for instance when braking into tight corners. And there are no automatic upshifts when the engine is revved to the limit.

The BMW **M5 Competition TRACK mode** is designed exclusively for use on race circuits and deactivates all the comfort and safety functions of the driver assistance systems. To focus the driver's attention even more intently on the road ahead, the audio system is also muted and the central display switched off. The result is a racing-car-inspired, ultra-pure distillation of M feeling. The instrument cluster switches to M View while the Head-Up Display dispenses with readouts from the driver assistance systems. Automatic activation of the hazard warning lights in response to emergency braking is suppressed and the collision warning system is also deactivated. Pressing the M Mode button again exits TRACK mode and returns to the ROAD setting.

**BMW Intelligent xDrive**

The fully variable power transfer of BMW's intelligent xDrive ensures maximum traction and directional stability in all road and weather conditions while also promoting sportier handling. This functionality comes from the electronically controlled multi-plate clutch in the transfer case which links up with the Dynamic Stability Control (DSC) system and constantly adjusts power transmission – precisely and in a fraction of a second – in response to the driving situation. In this way, any tendency of the vehicle to oversteer or understeer is greatly reduced.

The system's rear-biased setup helps to ensure the new 5 Series Sedan retains the exhilarating driving experience drivers expect from a BMW. Sending more power to the rear wheels under normal driving increases agility when cornering. In situations which do not require all-wheel drive, the efficiency of BMW xDrive is increased by directing the engine's torque to the rear wheels. The weight of the system has also been reduced, while optimized oil supply increases internal efficiency.

The M550i xDrive Sedan's capabilities are further enhanced by the standard rear M Sport differential. This electronically controlled rear differential lock improves traction and power transmission by offering differing levels of grip for the left and right rear wheels and by preventing a wheel from spinning when it is short on traction.

**Sophisticated Chassis Technology**

The new 2021 BMW 5 Series Sedans use the proven double-wishbone front and five-link rear suspensions to deliver the best combination of excellent handling and long-distance comfort. Lightweight and carefully tuned suspension components and bushings work in unison to prevent road irregularities from disrupting the steering and isolating the body while providing the agility expected of the BMW 5 Series sports sedan.

The M Sport Suspension, available as part of the optional M Sport Package (standard on 540i xDrive Sedan), includes specially tuned spring and shock settings plus a 10 mm drop in ride height. Adaptive Drive, optional on the 540i xDrive Sedan features electronically controlled shocks which use continuously adjustable valves to adjust the damping force at each wheel individually, improving both the car's sporting handling and comfort.

Standard on the M550i xDrive is the **Adaptive M Suspension** which is specially tuned to provide greater poise and agility when pushing the car to its limits. The M550i xDrive Sedan's handling can be even further enhanced with the **Adaptive M Suspension Professional** which adds Active Roll Stabilization and Integral Active Steering.

▲The new BMW M5 Competition

The **M5 Competition is rear wheel biased** with engine's torque is distributed between the front and rear wheels seamlessly and fully variable by means of the transfer case's electronically controlled multi-plate clutch, before the Active M Differential splits it again between the two rear wheels. The driver can vary the distribution of power between front and rear wheels and also adjust the responses of the Dynamic Stability Control (DSC) system. M Dynamic Mode (MDM) holds the key to controlled drifts and particularly playful handling. It offers another three modes (with DSC deactivated) which have been optimized for track driving: 4WD, 4WDSport and 2WD mode for pure rear-wheel drive.

The **BMW M5 Competition has a specially tuned and stiffer chassis**, benefitting from BMW M8 Gran Coupé development, whose shock absorbers have been carried over. The electronically controlled Variable Damper Control (VDC) offers three driving modes – COMFORT, SPORT and SPORT+.

COMFORT mode focuses on a broad-based everyday usability combined with typical M dynamics. SPORT mode, meanwhile, reduces wheel and body movements to create more direct contact with the road, while retaining a substantial comfort profile, while SPORT+ mode maximizes dynamic performance on smooth asphalt, with wheel and body movements minimized.

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Similarly, the **M Servotronic steering** gives drivers the choice of COMFORT mode for greater ease of use and lightness for in-town driving while SPORT mode provides enhanced steering feedback tailored to more sporting driving.

The **BMW M5 Competition has been dropped seven millimeters** and increased camber at the front axle to handle higher lateral forces in corners. The toe links are fitted with ball joints instead of rubber mounts for more precise wheel control at the rear axle. The rear anti-roll bar has a firmer spring rate, giving body roll in high-speed corners a more pronounced rear bias. The modified mounting for the front-axle anti-roll bar combines with ten per cent stiffer springs at the front and rear axles to produce a firmer ride, making for more precise steering response. Additionally, shorter auxiliary springs reduce fluctuation in wheel loads.

The BMW M5 Competition standard are forged, bi-colour, 20-inch Mlight-alloy wheels in Y-spoke design (front: 9.5 J x 20, rear: 10.5 J x 20) and mixed-size tires (front: 275/35 R 20, rear: 285/35 R 20). Standard

M Compound brakes are the perforated, inner-vented brake discs and six-piston fixed calipers at the front and single-piston floating-calipers brakes with integrated parking brake at the rear. Calipers are finished in High-gloss Blue, with High-gloss Black and High-gloss Red as options.

The optional M Carbon ceramic brakes with six-piston fixed calipers at the front and single-piston floating calipers at the rear provide a significant reduction to unsprung weight, being some 23 kg lighter. The M Carbon ceramic brakes are recognizable by their gold-coloured calipers with M logo and provide increased braking performance over M Compound brakes, along with improved fade resistance, higher thermal stability and enhanced wear characteristics.
into the air flow.

**The Exterior**

The exterior of the BMW 5 Series sports a cleaner surface design. The most striking feature is the new BMW Kidney Grille design with re-sculpted headlamps. The new grille is taller and wider, reaching further down into the front bumper cover and is surrounded by a one-piece grille. The vertical grille slats are more pronounced and extend further into the air flow.

While most exterior and interior dimensions remain unchanged, the length grows by 30 mm to offer a more sweeping profile. The aerodynamics of the new 5 Series Sedans benefit from the carefully drawn lines, with the 530i xDrive Sedan achieving a Cx as low as 0.27.

The new standard Adaptive LED headlights are slimmer in profile and feature two L–shaped daytime driving light elements on each side. These elements also perform the function of turn signals.

The rear of the 5 Series is accentuated by new, standard trapezoidal tailpipe finishers integrated into the lower bumper area. New rear L-shaped taillights feature black edging and three-dimensional lenses.

The M Sport Package benefits from redesigned front and rear bumpers, larger front air intakes with mesh inserts and a re-sculptured rear diffuser panel.

The M550i xDrive Sedan includes the new Aerodynamic kit from the M Sport Package and enhances functionality and appearance further with the addition of a rear trunk lid spoiler and with a Cerium Grey finish to the side mirror caps, BMW Kidney Grille, inlays in the front air intakes and Air Breathers and grille surround, and model lettering.

The dual trapezoidal exhaust finishers are black chrome while window surrounds are in high-gloss black.

BMW M5 Competition offers five new paint finishes: Hatch Grey and Motegi Red metallic are standard and BMW Individual adds Tanzanite Blue II, Adventurine Red II metallic and the matt finish Frozen Bluestone metallic.

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**Interior**

The interior highlight is the standard Live Cockpit Professional with iDrive 7, a 12.3" digital instrument display and a 12.3" digital central touchscreen control display (up from previous 10.25"). Standard Navigation, Apple CarPlay Compatibility and Android Auto Compatibility are included.

Dakota Leather is standard as is the SensaTec Dashboard. Nappa Leather is optional and BMW Individual Merino Leather can be specified on the 540i xDrive and M550i xDrive Sedans. All models feature standard Sport seats and a 40:20:40 split folding rear seat.

**Advanced Driver Assistance Systems**

All 2021 BMW 5 Series Sedans come equipped with **Standard Assist**: Lane Departure Warning with steering correction, Frontal collision and pedestrian warning with braking function (which allows for reaction to vehicles, stationary objects, cyclists and pedestrians), Blind Spot Detection, Rear Cross Traffic Alert - which warns of possible crossing traffic when backing up, Rear Collision Preparation, Automatic High Beams and Speed limit information.

The optional **Driving Assistant Professional** adds Active Cruise Control with Stop & Go, Extended Traffic Jam Assist for limited access highways (a Level 2 autonomous assist system which helps to reduce fatigue in stop and go freeway traffic by allowing for extended hands free vehicle operation), Lane Keeping Assistant with side collision avoidance, Evasion Aid, Front Cross-Traffic Alert, and Emergency Stop Assistant (which can help guide your BMW to the shoulder and bring it to a halt in a medical emergency situation).

In the **Standard Live Cockpit Professional**, the Navigation system is enhanced with 3D visualizations of the surrounding area, depicting all of the cars, trucks and motorcycles registered by the cameras and sensors in the driver's current lane as well as those in any adjacent lanes. They are shown in the central section of the instrument display. Vehicles within a critical distance are highlighted. Graphics indicate maneuvers which can be carried out with the help of the assistance systems. This ensures the driver has an overview of the situation and relevant courses of action at all times. If route guidance is activated, the screen also shows a panel with navigation instructions above the 3D view.

The Navigation has also been improved with a new digital cloud-based feature called BMW Maps. The benefits are faster route calculations and dynamic recalculation based on precise real-time traffic data. The route is worked out using an anticipatory approach, meaning upcoming traffic along the entire route is factored into the calculation of the expected arrival time. Complete traffic data is now available for more minor roads, too.

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*Continued from page 10*

Hazard warnings transmitted online from the BMW fleet now reach the car even faster thanks to connected navigation. These improvements help to produce a very accurate estimate of arrival time and improved route guidance. The destination input function has also been improved and now lets the driver enter any word. Alternatively, the destination can be entered at any time simply by voice control. Plus, points of interest (POIs) along the route are described in greater detail, with reviews, opening times and photos.

The optional **Parking Assistant Plus** includes a panorama view and 3D surround camera views to assist with parking. The system helps identify suitable parallel and perpendicular parking spots and can guide your 5 Series into and out of your selected spot. The included **Back-Up Assistant** records the last 50 metres driven at speeds below 35 km/h and can automatically reverse your 5 Series along the exact path take to help navigate narrow or winding driveways for example. The Remote 3D View function gives drivers the ability to call up a three-dimensional live image of their parked vehicle and its immediate vicinity on their smartphone. The **Drive Recorder**, a new feature to the BMW 5 Series, uses the cameras of the various driver assistance systems to record video footage from different points around the vehicle, before storing the recordings so they can be either watched later on the Control Display when the car is stationary or exported via the USB port.

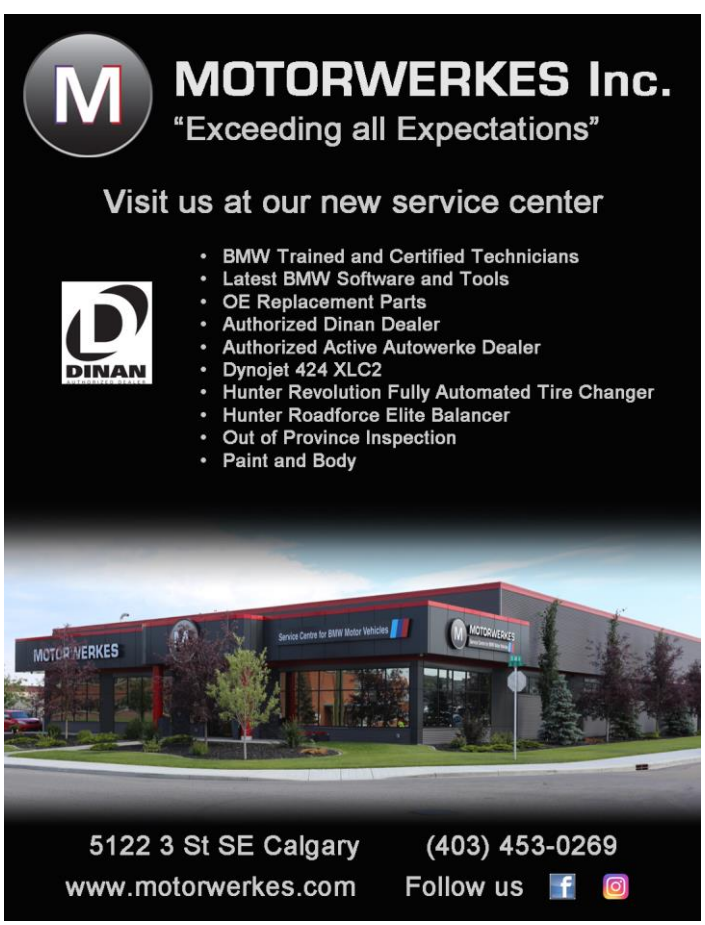
The latest version of BMW's **Intelligent Personal Assistant** helps interact with your car in a more natural way. Activated by a spoken prompt, such as "Hey BMW" or at the touch of a button, this digital companion learns the way you communicate to provide better and more accurate responses. Naturally spoken instructions can now also be used to open and close the car's windows (partially or fully) or adjust the air conditioning. In addition, the driver can set rules by which the BMW Intelligent Personal Assistant learns routines that increase convenience in specific situations. For instance, the driver's window could be opened automatically when the vehicle reaches a chosen location entered using GPS coordinates, such as the entrance to a garage.

▲The new BMW M5 Competition

Production starts in July with first deliveries in August 2020.

Pricing and options information is to be confirmed in the coming weeks but the base price of the M5 has been announced at $121,000.

*Sources: BMW Canada 5 and M5 Press releases.*



## Jasper Road Trip

Once upon a time, just a few months ago, world travel was unlimited and our group had several junkets on the boards, from Northern Europe to Spain to Canyonlands. While we certainly hope all will be possible again, we often forget how breathtaking parts of our own province are.

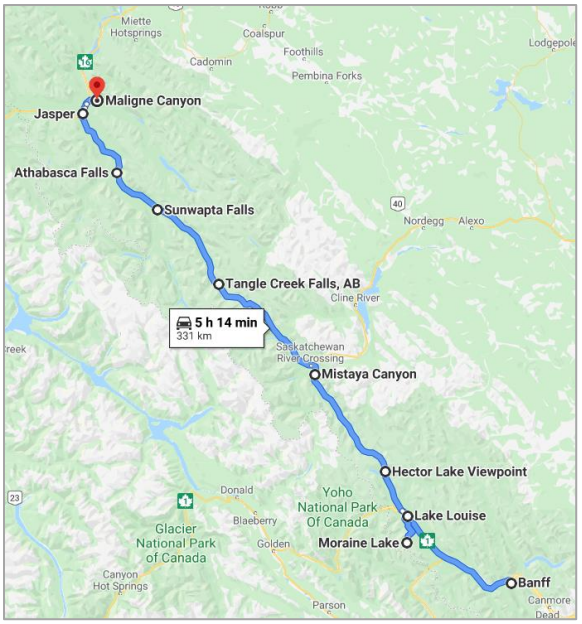
We are currently canvassing members for interest in either a three- or four-day junket to Jasper around the September 14th weekend. We are investigating hotels to determine the best fit for our group.

The drive up the Icefield Parkway up to Jasper has many exhilarating sights and short hikes. Jasper is far more laid back than Banff and has many interesting places to see including Maligne Canyon and Lake, Pyramid and Patricia Lakes, Jasper Park Lodge, and even golf courses.

If you are interested, please give Ray Hansen a shout at (403) 700-9215 or rspyder007@gmail.com.

Link to Google Map of locations on the Jasper road trip: https://goo.gl/maps/EpNh7fL38UkM2dcVA

Photos by Chris Tworek (June 2020)




▲ Scenic stops on a road trip to Jasper

▼Mistaya Canyon

▼Athabasca Falls

*Continued from page 12*

▲ Sunwapta Falls

National Parks websites with extensive information:

Banff National Park
https://www.pc.gc.ca/en/pn-np/ab/banff

Jasper National Park
https://www.pc.gc.ca/en/pn-np/ab/jasper

The Icefields Parkway (Highway 93 North) joins the hamlet of Lake Louise in Banff National Park with the Town of Jasper in Jasper National Park. Give yourself a full day to travel one-way. It is one of the most scenic highways in the world.
https://www.pc.gc.ca/en/pn-np/ab/jasper/activ/itineraires-itineraries/promenadedesglaciers-icefieldsparkway

The 230-km journey through the heart of the Canadian Rocky Mountains offers the opportunity to travel through protected wildlife habitats and to witness nature at work.
https://www.pc.gc.ca/en/pn-np/ab/banff/visit/les10-top10/glaciers-icefields

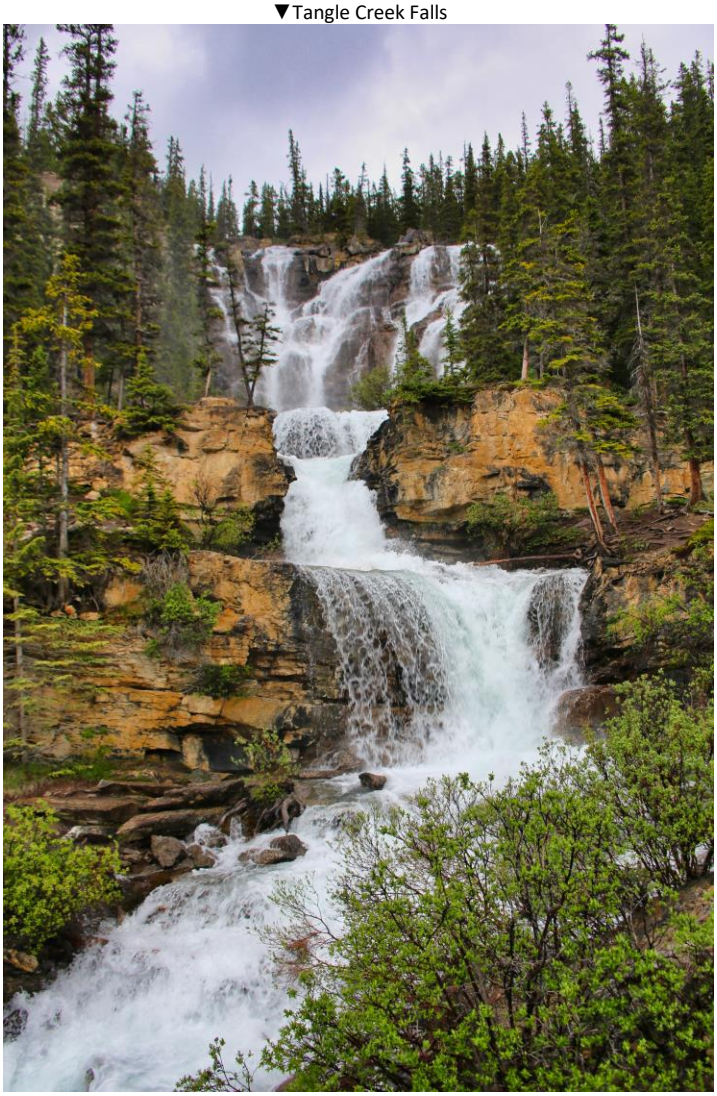
A few websites to explore for possibilities near Banff and Lake Louise, the Icefields Parkway and the Jasper area. These websites also have up-to-date Covid-19 info.

Banff & Lake Louise Tourist Office
https://www.banfflakelouise.com/

The Icefields Parkway
https://icefieldsparkway.com/coronavirus-covid-19-information

Jasper and Jasper National Park
https://www.jasper.travel/coronavirus-update/

▼Tangle Creek Falls



*Photos by Chris Tworek (June 2020)*

# BMW World

## BMW Group applies AI solutions to increase paint shop quality

**Ongoing algorithm-based analysis of dust content in the paint booth and database comparison to predict paint quality**

Artificial intelligence can bring even greater precision to controlling highly sensitive systems in automotive production, as a pilot project in the paint shop of the BMW Group's Munich plant has demonstrated. Despite state-of-the-art filtration technology, the content of finest dust particles in paint lines varies depending on the ambient air drawn in. If the dust content exceeds the threshold, the still wet paint could trap particles, thus visually impairing the painted surface.

Artificial Intelligence (AI) specialists from central planning and the Munich plant have now found a way to avoid this situation altogether. Every freshly painted car body must undergo an automatic surface inspection in the paint shop. Data gathered in these inspections are used to develop a comprehensive database for dust particle analysis. The specialists are now applying AI algorithms to compare live data from dust particle sensors in the paint booths and dryers with this database.

"Data-based solutions help us secure and further extend our stringent quality requirements to the benefit of our customers. Smart data analytics and AI serve as key decision-making aids for our team when it comes to developing process improvements. We have filed for several patents relating to this innovative dust particle analysis technology," explains Albin Dirndorfer, Senior Vice President Painted Body, Finish and Surface at the BMW Group.

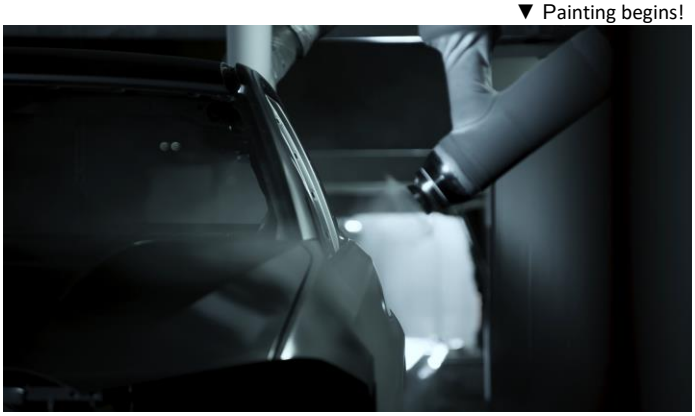
Two specific examples show the benefits of this new AI solution: Where dust levels are set to rise owing to the season or during prolonged dry periods, the algorithm can detect this trend in real time and is able to determine, for example, an earlier time for filter replacement. Additional patterns can be detected where this algorithm is used alongside other analytical tools. For example, analysis could further show that the facility that uses ostrich feathers to remove dust particles from car bodies needs to be fine-tuned.

▲ Feathers remove dust particles from vehicle body at start of the paint line.

▼ Ferdinand-Kleber inspects a vehicle body.

▲ The clean vehicle body ready to paint.

▼ Painting begins!



The BMW Group's AI specialists see enormous potential in dust particle analysis. Based on information from numerous sensors and data from surface inspections, the algorithm monitors over 160 features relating to the car body and is able to predict the quality of paint application very accurately. This AI solution will be suitable for application in series production when an even broader database for the algorithm has been developed. In particular, this requires additional measuring points and even more precise sensor data for the car body cleaning stations. The AI experts are confident that once the pilot project at the parent plant in Munich has been completed, it will be possible to launch dust particle analysis also at other vehicle plants.

## Forgotten Heroes: The BMW Nazca M12 (1991)

In March 1991, a BMW super-sports car shone out from the glitz and glamour of the Geneva Motor Show to steal the headlines in spectacular style. The Nazca M12 was the debut creation of Fabrizio Giugiaro, son of *Italdesign* founder and celebrated designer Giorgetto Giugiaro. Fabrizio was just 26 years old when he conjured up the breathtaking form of this stunning prototype.

*Continued on page 15*

*BMW World continued from page 14*

There was a clue to the car's means of propulsion in its "M12" nameplate. Lurking below the Nazca's rakish carbon-fibre finery was the 300 hp five-litre 12-cylinder engine from BMW's 750i and 850i production cars. The company's legendary V12 was mounted midships in a longitudinal configuration and had the tools to catapult this featherweight bullet car (it tipped the scales at just 1.1 tonnes) over the world's roads and racetracks at awesome speed.

Even without turning a wheel, the BMW Nazca M12 made quite a statement. The smooth-surfaced bodywork inspired by Formula 1 and Group C machines ensured the 4.37-metre long, 1.99-metre wide speed merchant was slippery-fast. Standing just 1.10 m off the ground, its Cd of 0.26 was game-changing stuff at the time

Jaw-dropping features abounded, not least the gullwing side windows rising from conventionally hinged doors. And a glass roof structure gave the supercar's driver and his or her passenger an unhindered, panoramic view out.

The BMW prototype thrilled the Geneva galleries and international press alike. Many saw in the BMW Nazca M12 a worthy successor to the M1. Speculation was ratcheted up another notch by two further prototypes, the BMW Nazca C2 (Tokyo 1992) and its open-top sibling, the C2 Spider (1993). But the BMW Nazca M12 never made it into series production.

Which was a shame, of course, but not the one-way ticket to obscurity it might have been. Because BMW Group Classic has gathered together a treasure trove brimming with FORGOTTEN HEROES – and we delight in telling the fascinating stories behind these unforgettable milestones in BMW history.

*Source: BMW Classic Group*

## 2020 Lifestyle Kids Collection

BMW has added more to their Kids Collection. The top of the Babyracer series has to be the electric M8 GTE ride-on—a mini version of the performance M8 GTE from BMW Motorsport. It comes with functioning doors, yellow-tinted lighting that works and a sportscar engine note.

For the more ecologically minded parent or grandparent, BMW has released the i8 ride-on. This is the kid's version of the marque's hybrid-electric coupé and roadster. The child's i8 comes replete with a genuine BMW electric engine sound, lighting effects and opening doors.

Both kid BMWs have a 12-volt battery and can speed up to 2.5 mph, as well as ride for a couple of hours between charges. Battery charge-time is estimated between 8 to 12 hours. The two also have built-in MP3 interfaces that play music and audio files.

For the young Barney Rubble foot power crowd, there is also a Kartell BMW ride-on, but it is only available in Europe.

## We Will Be Sustainable

When it comes to sustainability, major corporations have a key role to play. BMW acknowledged this fact long ago and outperforms industry rivals in terms of CO2 emissions per vehicle produced. But as new powertrains such as e-drives gain momentum, the approach to sustainable vehicle production is changing. In a recent interview, BMW Management Board Chairman Oliver Zipse explained the BMW's ambitious goals and outlines what aspects of sustainability will be the key focal points in the future.

A summary of Zipse's remarks follows:

- The coronavirus pandemic has thrown the global economy off course within a very short space of time, and this has also led to significant cutbacks in a number of BMW projects. However, there can be no compromise when it comes to climate and environmental protection. That's why it is so important to set the right course in these challenging times and BMW will be stepping up the pace.
- BMW had set targets for emissions reductions by 2020 for resource consumption and the emissions generated directly as a company and these were met in 2019. We lowered energy consumption per vehicle produced by more than 40 percent and were able to reduce waste and CO2 emissions by over 70 percent. This has allowed developing a completely new sustainability strategy for the future earlier than expected.

*Continued on Page 16*

*BMW World continued from page 15*

- While the details are still being worked, the approach is radically holistic. For example: To contribute effectively to climate protection, we will need to improve our products' overall environmental balance – from resources to recycling. As e-mobility gains more and more traction, the focus of CO2 reduction will shift to upstream added value – and, especially, the energy-intensive production of high-voltage batteries. Up to 40 percent of a fully-electric vehicle's CO2 emissions come from battery cell production alone. Depending on where they are produced and the electricity mix used there, about a third of these emissions come from power consumption directly at the cell manufacturer. This is a major and very effective lever for reducing CO2 – so that is precisely where we are focusing our efforts.
- Our strategy works best when manufacturers and suppliers work together. We now have a contractual agreement with our cell manufacturers that they will use only green power to produce our fifth-generation battery cells. Later this year we will launch this technology with the BMW iX3 and then roll it out across our product line-up – including the BMW iNEXT and BMW i4 next year. As volumes increase, the use of green power will save around ten million tonnes of CO2 over the next decade. For comparison, that is roughly the amount of CO2 a city of over a million inhabitants, like Munich, emits per year.
- In addition to reducing resource consumption and emissions significantly, we are also fully on track to meet our CO2 fleet targets in the EU. This will also be the first year all plants operated by the BMW Group, as well as our BBA joint venture in China, will obtain their electricity exclusively from renewable energy sources. Our partners know we aren't satisfied with just making announcements for the distant future. We deliver and will continue to do so in the present.

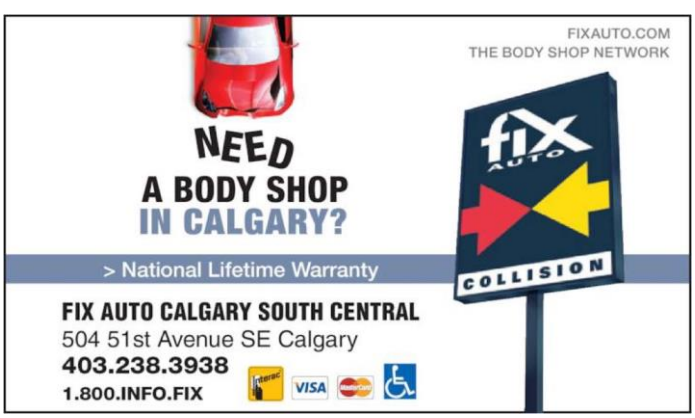
## BMW Trivia: What do the BMW Racing Stripe Colours Stand For?

Red is for racing and Blue is for the home state of Bavaria.
Purple is a mix of the two!
*Source: BMW Classic Group*

## "Birth Certificates" For Vintage Cars & Modern Classics

BMW Group Classic is gradually able to move back to offering its usual services. This includes issuing certificates for models that are older than 20 years. These documents are rather like a "Birth Certificate" for the specific vehicle and this makes them a valuable addition to the Registration Document and the Service Handbook. They offer a precise record of the individual story of each vintage car and modern classic. The certificate from BMW Group Classic confirms the production and delivery dates and this makes it easier for owners to precisely document the origin of their classic car.
https://www.bmwgroup-classic.com/en/offers-and-services/bmw-group-archiv.html

*Source: BMW Classic Group*



# Member Cars and Garages

We will be devoting the printed September *Freude am Fahren* to more detailed stories about member cars and projects. If you have something to share, please contact Chris Tworek at 403-238-8049 or tworek@bmwcsa.ca.
In the meantime, for your viewing pleasure we have:

## Ton Reiniking & James Carmichael – 850s

Ton Reinking (1996 850 E31 auto) and James Carmichael (1991 850 E31 6 speed) brought out their cars to the CC&C on July 4.

We took them out to an industrial area backdrop for some quick photos with the new 2020 850 brought out by Calgary BMW.

Both cars were part of last's year's Hanger Find rescue and have been carefully restored to prime condition. They will be featured in the September issue.

*Member Cars continued on page 18*

Classified Ad:

**2000 BMW M-Coupe**

S52B32 3.2L 6 Cylinder Engine ● 6 Speed Manual ● 99,7XX Miles
Titanium Silver Metallic on Black Nappa Leather Interior

Fewer than 300 S52 M-Coupes sold worldwide in these colours. Originally from California. Purchased in Burnaby BC in 2009--only put 12,000 miles on. Have all service records including original sticker from California dealership. Have done a few minor modifications:

● Rare 6 Speed Manual Conversion (from 5sp manual) using E46 M3 Transmission ● Brand new E46 M3 OEM Clutch and Flywheel ● Rogue Engineering Short Shift Kit & SS Clutch Line ● Bimmerworld Rear Transmission Mounts ● Bayern Munich Wheels wrapped in Bridgestone Potenza RE760 Tires ● Conforti Cold Air Intake ● Remus Axle Back Exhaust System ● Stewart High Flow Water Pump ● Custom tune by Sheni's Auto-Trend ● TC Kline DA Coilovers with Camber Plates and Rear Poly Upper Mounts ● Powerslot Drilled Brake Rotors, SS lines, Akebono Pads & Blue Powder Coated Calipers ● Umnitza Headlights W/ V2 Halo Rings w/ High & Low Beam 6000K HID Kits ● All Smoked Lights ● Gloss Black Wrapped Roof ● NeverDone Rear Diffuser ● ZHP Shift Knob

This is the lowest priced M-Coupe in the country. Driven and maintained exceptionally. Serious inquires only. $49,500 all in.

**Contact Zuhair at Sheni's Autotrend at (403) 243-3232**

Classified Ad:

**** 1988 BMW M6 For Sale ****

Black with Black Leather Interior 199,986 km

Have you always dreamed of owning a 1988 BMW M6? Now is your chance to own one of these unique cars. Only about 1700 were made for the North American market. This car has had one owner since 1993.

See the car in action demonstrating its powerful engine:
https://www.youtube.com/watch?v=bQt3nvL7gXU

More pictures, videos and a Carfax report are available.
Comes with a brand-new set of tires which will fit the original rims.
Asking $40,000 or best offer.

**Contact Chelsey Cabaj at 1-780-887-3950**
or email chelseycabaj@gmail.com to learn more.

*Member Cars continued from page 17*

## Steve Ruff's M6

Steve bought the M6 from BMW Gallery and was the first customer to receive his car via the new Dilawri Curbside Delivery Service.

The M6 is a rare beast having been built specifically for Canada and it was the last one manufactured. Steve and Karen threw a socially distanced receiving party in late May.

## James Saunderson's Z4

James picked up his 2011 Z4 35is in Montreal about three years ago as he wanted this outstanding red paint and it was hard to find.

Caught at the recent Father's Day Drive, it is most certainly the car for a spin on mountain roads on a glorious Alberta day!

*Classified Ad:*

**Club Fund Raiser**

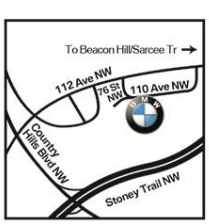
The estate of a member has given the club a hardware collection to raise funds. This includes but is not limited to automotive and wood fasteners (in original boxes with a few missing), car and home hardware, paint masking supplies, antique tire chains and a 4'x5' sheet of thin gauge aluminium. Any donation accepted.
Contact Chris Tworek at 403-238-8049 or tworek@bmwcsa.ca

**EXTERIOR**
Sporty, progressive design, frameless doors and an elegant coupés silhouette.

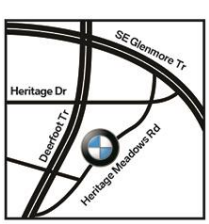
**INTERIOR**
Stylish ambience and a sophisticated, driver-oriented cockpit.

**INTELLIGENT PERSONAL ASSISTANT**
Provides you with advice and assistance on the road.

## BOOK A TEST DRIVE TODAY!




**BMW Gallery**
7699 - 110 Ave NW
Calgary, AB
403.275.6492
info@bmwgallery.ca
bmwgallery.ca




**Calgary BMW**
34 Heritage Meadows Rd SE
Calgary, AB
403.253.0338
info@calgarybmw.ca
calgarybmw.ca

AMVIC
Alberta Motor Vehicle Industry Council