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BMW Club
Southern Alberta

Joy of Driving

February 2021

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BMW Club of Southern Alberta

The BMW Club of Southern Alberta is a member club of the BMW Club of Canada which is a founding national member of the International Council of BMW Clubs.

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Freude am Fahren [Joy of Driving] Newsletter

- The BMW Club of Southern Alberta (BMWCSA) publishes Freude am Fahren in print 4 times per year and emails Joy of Driving 6 times per year.
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- Please send Newsletter Items and Questions to Chris Tworek at Tworek@bmwcsa.ca
- Please send Address Changes to Glen Cook at membership@bmwcsa.ca

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

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On the cover: 2021 BMW M3 & M4 by BMW Press Feeds

Kalender

Back to Flattening the Curve

Feb 10 Social & General Meeting - 7:30 pm - 10:00 pm
Contact events@bmwcsa.ca for video conference invitation

All Cars, Coffee & Chat (CC&C) Cancelled Until Further Notice

Please Support Ricky's, Austrian Canadian Club and our Advertisers during these tough times

- Be sensitive to changing guidelines
- All are open offering their usual great service
- All follow all safety precautions for you and your ride

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.

Also many of our advertising sponsors, whose ads appear in our newsletters, 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.

The President's Corner – Greg Walsh

AGM

Your Club's Annual General Meeting was held on Wednesday December 9th 2020 and for the first time was via video conferencing. This first was necessitated by the COVID-19 meeting restrictions put in place by our Provincial Government. As it turned out our combined actual and proxy attendance was the highest ever for an AGM. Somehow, I think that this record owed more to pent-up frustration for any form of socializing, than to a keen interest in listening to yours truly chair a meeting. It was a straight forward affair as AGMs go: Previous meeting minutes and financials were approved, Internal Auditors for the 2020 fiscal year were appointed from the membership and the Directors' election was held. Victor Yuen, Greg Walsh and Chris Tworek were each re-elected by acclamation for new three year terms.

The Directors then got together on January 3rd 2021 and appointed this year's executive. These folks are listed on page 3 of this newsletter. Significant changes were that Chris Tworek relinquished his post as Vice-president to Jeff Trost, and Ray Hansen took over as Motorsport Coordinator thus allowing Gary Coleman to concentrate on his duties as your Chief Driving Instructor. This latter move shows how confident we are that 2021 is going to bring us all some track time!

The Directors also appointed Heather Mercier and Rob Norum as the principal Event Coordinators. They were charged with the task of reviewing all our activities and pulling together some long-range ideas for where we going and what the Club can do to keep its membership occupied, especially during the constraints Covid-19 restrictions. Please see the article in the newsltter for more on Heather and Rob's preliminary thoughts. I also encourage you to share with them your ideas and wishes for activities.

Our monthly meetings will continue to be held via video conferencing for the months to come. To keep you more engaged and because we already have your attention in front of a screen we are contemplating adding a video presentation to the meeting. These could be garage tours, highlights from BMW promo shoots, instructional clips, technical explanations.... If you have a favourite you'd like to share please drop me a line.

Before I sign off I wish to remind you that our sponsors need your support during these difficult times. Especially the eateries that we have congregated at in the past. If you have the opportunity for a take-out please consider Ricky's Deerfoot and the Austrian Canadian Club.

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

I wish you joy of your BMW.

Greg Walsh

Welcome 2021 – Early Events Outlook

The year begins with restrictions still in place for our health and safety.

During a virtual executive meeting in early January, the consensus was, the group was looking forward to the time when we can meet in person again. So discussions began, sharing ideas on events that can be planned in the future.

Events we have enjoyed in the past:

- Cars, Coffee and Chat (CC&C), the first Saturday of every month
- Annual Father's Day drive.
- Annual summer BBQ
- Annual Christmas party
- Tire Rack Street Survival
- Winter driving school
- Day trips and multi day tours.

New event ideas:

- Monthly day drives, the 3rd Sunday of good weather months
- Scavenger Hunt or Poker Runs
- Geocaching
- Golf tournament
- Frisbee Golf
- Go Karting
- Oldstoberfest and Rodeo (In Olds)
- Multi day driving tours (e.g. previous Nelson and Jasper 2-4 day tours – perhaps Waterton this spring)
- Visit to Rocky Motorsports or Badlands Motorsports sites to view progress

Until we meet again, members can share ideas, plan and look forward to great events ahead.

If you have any ideas or suggestions or wish to participate please contact Heather Mercier and Rob Norum at welcome@bmwcsa.ca. In particular, if you have driven an interesting route, let us know what you thought!

Pre-Covid days...

Rocky Mountain Motorsports - Working hard to be ready in 2021

Rocky Mountain Motorsports (RMM) has been able to accomplish a tremendous amount of construction this past fall which should bode well for opening in 2021.

The first equipment showed up in August and highly committed crews worked an aggressive schedule. 24 hours per day during the week, and 12 hours per day on the weekend has resulted in identifiable track forms now beginning to take shape, even earlier than expected.

A significant amount of the early effort has been focused on the access and stormwater infrastructure, but significant amounts of track grading and excavation has also been done:

- RR10A has been newly built, is paved and open.
- RR10 presented some additional challenges as its entire foundation was topsoil. It has been rebuilt now and has been turned over to Volker Stevin for paving in early spring.
- 700,000 M3 of dirt has been moved – this is almost 1,400,000 tonnes.
- This includes the excavation of all of the stormwater ponds, including the huge stormwater pond on the east side. This dirt has gone into building up the paddock area and into the sound attenuation berms.
- The crew has completed the installation of the underground drainage system for the track.
- A number of corners and the north main straight are partially or fully excavated.

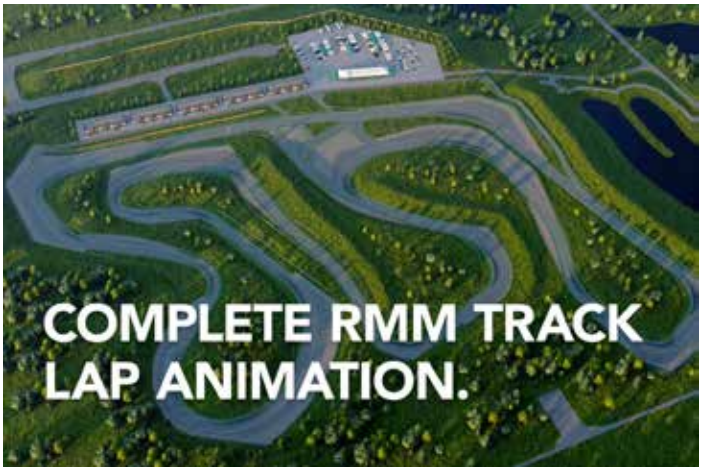
The amount that has been accomplished in the past four months is quite remarkable. RMM is undertaking the balance of stripping of track topsoil in January, which to-date is almost complete.

RMM also released the Track Lap Animation (available on their website) that lets you do a virtual lap.

TURN 12 EXCAVATION

TURN 13 BEGINNING TO TAKE SHAPE

10A SUPPORT ROAD PAVING

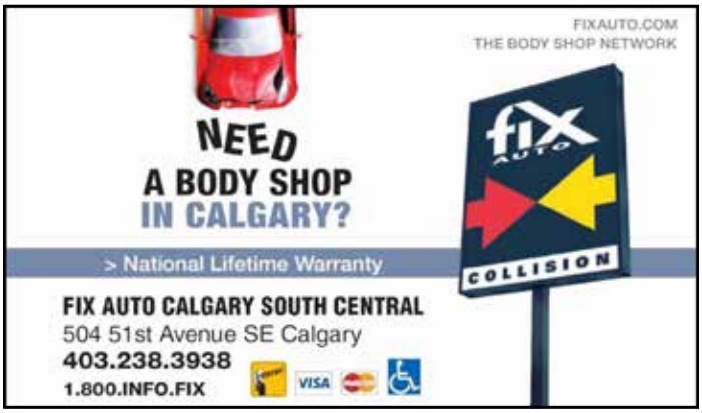


With construction moving quickly, individual membership levels are also continuing to sell. All membership levels are life-time memberships and limited availability. RMM has also made a very limited number of corporate membership opportunities available.

RMM has implemented an updated limited-time instalment plan on its Platinum and Gold memberships as follows:

	Gold	Platinum
Due on subscription	$5,000	$8,000
Due by March 15/21	$12,000	$16,000
Due by May 15/21	$12,000	$16,000
Due by July 1/21	$12,000	$16,000

In addition, RMM are also continuing to acquire registrations for our track-side garages/car condos. Get more information and register at: https://rockymotorsports.com



REMINDER

BMW Canada Loyalty Discount for BMW Club Canada Members

Members are reminded to follow the proper process to avoid losing the discount

- **This is a BMW Canada Plan** – BMW Clubs only administer the application process
- The Loyalty Discount:
  - o 2% off MRSP up to $2000 (regardless of any other deal at dealership)
  - o Applies to new vehicles and motorcycles
  - o Applicant must have been a BMW Club member for minimum of 12 months
  - o Some models may be periodically excluded so check Club website
- **Prior to Purchase Club Member MUST:**
  - o Fill in application form (see https://www.bmw-csa.ca/membership-overview/benefits/)
  - o Email to Club President at walsh@bmwcsa.ca ***BEFORE PURCHASE***
    - *It can take up to 2 weeks for processing so apply early*
  - o **Only the Member may submit the application, no Dealership nor anyone else may submit it on their behalf**
- Upon membership verification by the BMW Club, BMW Canada emails ***discount letter*** to member
  - o Letter is good for up to six (6) months on any new model
  - o Member presents discount letter to Dealership during purchase process – ***cannot be done retroactively!***
- Each member may use only one (1) discount in any 12-month period but can apply for a letter multiple times
- Questions – contact Greg Walsh at walsh@bmwcsa.ca

The New 2021 BMW M3 Sedan and M4 Coupe

- Sixth generation of M3 and Second Generation M4
- 473 hp core models and 503 hp Competition models
- MSRP starting at $84,300 for the M3 and $85,100 for the M4 ($4,000 more for Competition models)
- March 2021 Launch for Rear-wheel drive, manual transmission M3 Sedan and M4 Coupe and Rear-wheel drive, automatic transmission M3 Competition Sedan and M4 Competition Coupe
- **M** xDrive to be available on Competition models starting summer 2021

BMW M S58 inline 6-cylinder engines

BMW **M** has boosted power by 48 hp and by 59 hp and 73 lb-ft of torque in the Competition models.

The new S58 powerplant delivers 473 hp at 6,250 rpm and 406 lb-ft of torque between 2,650 and 6,130 rpm giving 0 to 100 km/h in 4.2 seconds to a top speed of 250 km/h or 290 km/h when the **M** Driver's Package is selected.

The Competition S58 engine produces 503 hp at 6,250 rpm and 479 lb-ft of torque between 2,750 and 5,500 rpm reducing 0 to 100 km/h acceleration time to 3.9 seconds with top speeds of 250 km/h or 290 km/h.

The rigid closed-deck engine block features wire-arc sprayed cylinder liners to reduce friction and weight. A forged, lightweight crankshaft reduces rotating mass to improve high rpm characteristics. The cylinder head features a 3D-printed core which allows for optimized coolant passage routing and weight reduction.

Forced induction is provided by two, mono-scroll turbochargers with electronically controlled wastegates and efficient air-to-water intercooling. The quick response of the wastegates allows for quicker turbocharger response and for more efficient function of the catalytic converters which are positioned close to the engine.

The High-Precision Injection system operates at over 5,000 psi ensuring precise fine fuel atomization for efficient power and improved emissions. VALVETRONIC variable-valve timing and Double- VANOS variable camshaft timing give smooth and efficient power delivery.

Cooling system designed for track use

The M3 and M4 include water and oil cooling systems designed to stand up to the high temperatures of track use. Large front intakes ensure a sufficient flow of air to the low-

temperature and high-temperature radiators in the upper part of the grille opening. The lower area air flow is used to support the engine oil cooler, and in Competition models, a separate transmission oil cooler.

The low temperature cooling circuit features an electric cooling pump for the intercooler. The high temperature circuit supplies coolant to the engine and turbochargers through a mechanical coolant pump, main radiator and two supporting radiators in the front wheel wells. An additional electric cooling pump allows for turbocharging cooling to continue even after the engine has been switched off.

BMW **M**'s racing experience shows in the oil system where the oil sump features two chambers and a map-controlled oil pump. When extra lubrication is needed during high longitudinal or lateral loads, oil is pulled from the smaller sump chamber.

Model-specific electrically controlled exhaust

The dual-branch exhaust system has been tuned for performance and sound. Electrically controlled flaps provide comfortable sound levels by reducing intrusive sound frequencies. Selecting SPORT or SPORT+ modes turns up the intensity of the exhaust sound to match the increased dynamic feeling of the vehicle. An **M** Sound button allows the driver to reduce engine note when desired and works in any drive mode.

6-Speed Manual and 8-Speed M Steptronic transmissions

In a segment increasingly devoid of delivering on the classic driving experience, the M3 and M4 core models are delivered with rear-wheel drive and a 6-speed manual transmission. The short and precise gear shifts increase the connection between driver and car. A Gear Shift Assistant improves directional stability during dynamic driving by matching engine revs during downshifts. This system can be turned off via the iDrive menu by more experienced drivers. The manual transmission gives a 50-pound weight reduction over the 8-speed **M** Steptronic automatic transmission and improved front-to-rear weight distribution.

The greatly increased torque of the **Competition** models requires the **M** Steptronic automatic transmission with Drivelogic. Both automatic and manual modes are offered and can be controlled by the Drivelogic switch on the gear shift lever. Three automatic and three manual modes are available: Comfort oriented, sporty and track focused. Each mode features quicker and more intense shifting to match the focus of the driver. Downshifts in automatic mode also feature engine rev-matching. A helpful feature for maximum acceleration in manual mode is the ability to downshift to the lowest gear possible by pulling the left steering wheel mounted-shift lever while simultaneously pressing down on the throttle.

M xDrive intelligent all-wheel drive for Competition models

Summer will see the arrival of optional **M** xDrive for Competition models, a first for the M3 and M4. The additional traction will enable the 479 lb.-ft. of torque to be used to a greater extent during acceleration and dynamic driving.

The rear-biased system will distribute torque between the front and rear axles via an electronically controlled multi-plate clutch. An Active **M** differential takes care of torque distribution at the rear axle. Torque will be directed to the rear wheels during normal driving, providing the classic rear-wheel drive experience. Only when additional traction is required will torque be sent to the front axle.

Both the **M** xDrive and Active **M** differential are connected directly to the Dynamic Stability Control System ensuring quicker responses in improving agility and controlling both understeer and oversteer without having to involve the vehicle's central control computer.

The **M** xDrive system will offer three modes: 4WD - the default setting with rear-wheel biased torque distribution focused on traction and precisely controlled handling; 4WD Sport - directs greater percentage of torque to the rear during dynamic driving and is designed to work particularly well on track environments and with the optional track-focused tires, and, 2WD - requires DCS to be turned off and affords experienced drivers a pure rear-wheel drive experience without any system intervention.

Chassis and suspension

Both models benefit from body and chassis enhancements over their non-**M** relatives and from countless hours of intensive testing at BMW Group's Miramas testing facility in the South of France, at the winter testing centre in Arjeplog, Sweden, and from Nurburgring's Nordschleife.

The standard Adaptive **M** suspension with electronically controlled shock absorbers offers precise control with comfort and agility. The **M** integrated braking system offers two driver-selected settings for brake pedal feel. The **M** Traction Control system, part of the optional **M** Drive Professional, introduces a new integrated wheel slip limitation function of the Dynamic Stability Control system which can be adjusted through 10 stages based on the driver's preferences and needs.

An extensive package of bracing enhances vehicle rigidity and agility. At the front of the new M3 and M4, bracing connects the two shock towers together, the shock towers with the firewall and with the front end of the vehicle. Vertical bracing connects the engine compartment to the front **M** aluminum subframe which is also tied to the sills via integrated bracing. The centre and rear chassis areas also see added stiffening using crossbar bracing and bracing connecting the rear subframe with the trunk area.

The **M**-specific double-joint spring strut front suspension includes newly-developed aluminum wishbones with ball joints, an aluminum torque arm with newly developed mounts, a forged swivel bearing with a unique spring strut clamp and lightweight wheel bearings with very a high camber range. Large castor and kingpin angles as well as a lowered roll centre enable the combination of agility and comfort for everyday driving and long journeys. The five-link rear suspension features hubs and wishbone control arms which have been newly developed to ensure precise handling for the most demanding driver.

The front track has been increased by 1.5-inches over the previous models which helps to improve traction and directional stability of the new M3 and M4.

M Servotronic steering

The standard **M** Servotronic steering combines speed-sensitive assistance with a variable steering ratio allowing this **M**-tuned system to deliver precise handling and easer maneuvering at low speeds. The variable ratio adjusts to changes in steering angle and helps deliver superb straight-line composure and sharp turn-in response with excellent directional accuracy. When the wheels are already sharply turned, the steering rack teeth are positioned more closely together, so smaller steering wheel inputs are required. As a result, the car feels nimble on winding roads and can be maneuvered into and out of parking spaces with far less steering effort. The **M** Setup menu gives access to two steering settings - COMFORT for an easy steering feel with precise feedback and SPORT which increases both the feedback felt through the steering wheel and the amount of steering effort required.

Adaptive M suspension with electronically controlled dampers

The electronically controlled shock absorbers of the standard Adaptive **M** suspension utilize electromagnetically controlled valves which react in milliseconds to generate an infinitely variable damping force for each individual wheel.

The damper characteristics can be adjusted via the **M** Setup menu. The driver can select from three modes: COMFORT which focuses on everyday driving journeys and long trips by smoothing out road imperfections; SPORT which has been tuned for fast road conditions such as the Nurburgring Nordschleife, and, SPORT PLUS which optimizes damper control for maximum dampening on closed tracks.

M Integrated brakes

The standard **M** Compound brakes have been newly developed for the 2021 BMW M3 and M4 and feature front six-piston fixed-caliper brakes with 380 mm discs and rear single-piston floating ¬calipers with 370 mm disks. The calipers are painted in blue metallic but may be ordered in black or red; all with the **M** logo.

The optional **M** Carbon ceramic brakes deliver even stronger braking power with greater fade resistance, enhanced thermal stability and extremely high resistance to wear. Their gold painted calipers are complemented by front 400 mm discs and rear 380 mm disks.

A shared feature of both brake variants is the integrated braking system. This cutting-edge technology uses a compact module to control brake actuation, force assistance and control. The brake pressure required is produced by an electric actuator. As a result, brake pressure is generated more dynamically and ensures significantly quicker and more precise inputs from the driving stability control system. The integrated braking system allows vehicle deceleration to be adjusted more precisely to the driver's requirements. Feedback from the brake pedal is unimpaired by wet road surfaces, significant lateral acceleration or high brake temperatures, giving the driver superb brake feel in all situations.

The **M**-specific version of the integrated braking system presents the driver with two pedal feel settings, COMFORT and SPORT. Both modes alter the amount of pressure on the brake pedal required to slow the car. The driver can therefore choose between more comfort-oriented and particularly direct, instantaneous response when braking. Their preferred mode is selected via the **M** Setup menu.

M light alloy wheels and performance tires

The M3 and M4 come with newly designed forged **M** light-alloy wheels, 19-inch in front and 20-inch in rear. Non-runflat performance tires, 275/35ZR19 front and 285/30ZR20 rear, are standard. Polished rim edges accentuate the size of the light-alloy wheels. Competition models feature a different wheel design. Michelin Cup 2 tires designed specifically for track use

can also be ordered. Two different wheel designs and four finishes can be optioned on both core and Competition models.

DSC with M Dynamic Mode and ten-stage traction control.

The DSC functions work with the integrated braking system. Along with the Anti-lock Braking System (ABS) and Cornering Brake Control (CBC), whose **M**-specific set-up helps to maximize precision, the integrated braking system assists the stability control function in reducing oversteer or understeer. A full suite of supporting systems including Automatic Differential Brake (ADB-X), Brake Assist, Dry Braking and Start-Off Assistant functions bring additional benefits to both performance and more casual driving situations.

The newly-designed control systems allow for more precise stabilizing adjustments to the engine's output. The integrated wheel slip limitation function brings more sensitive acceleration control on wet, snow-covered or icy surfaces or on roads with varied levels of traction. The slip control function has been relocated from the DSC control unit to the engine management system. It therefore acts on the engine's output up to 10 times quicker. This proactively avoids power-limiting inputs in response to excessively high revs. The car can therefore accelerate with more torque control on rough surfaces, for example.

The driver can also activate **M Dynamic Mode** by using a button on the centre console. This mode allows a greater degree of wheel slip, enabling very dynamic driving while still preserving the functions of DCS if needed.

Making its debut, is the optional **M Drive Professional**, a new traction control which allows the driver to set the intervention thresholds for wheel slip. The iDrive menu for this system displays ten stages of defined permitted wheel slip. This gives the driver the ability to select the ideal balance of racing-car performance and directional stability for road or track conditions and their personal preferences.

Exterior Design

The 2021 BMW M3 and M4 are the most aggressive and focused models to date. Exclusive exterior paint colours, forged **M** light-alloy wheels, a carbon fibre roof and the optional **M** Carbon exterior package differentiate the two new cars from their non-**M** versions more than ever.

Dimensionally, the new M3 Sedan is 117 mm (4.6-inches) longer, 10 mm (0.4-inches) wider, 9 mm (0.4-inches) higher and with a 45 mm (1.8-inch) longer wheelbase than the previous generation car. The new M4 Coupe is 117 mm (4.6-inches) longer, 17 mm (0.7-inches) wider, 10 mm (0.4-inches) higher and with a 45 mm (1.8-inch) longer wheelbase than the M4 that it replaces.

The M3 front end displays the most aggressive differentiation from its non-**M** sibling. Like the new M4, the front end is highlighted by the large and deep frameless BMW kidney grille designed to feed the massive amounts of air needed for fulfilling the cooling requirements. Cooling for the engine and brakes is provided by large additional intakes on either side of the kidney grille. These two-section apertures feature brake air ducts on the inside and air supply for the remote coolant radiators to the outside. At the outer edges of the front bumper, the vertical intakes for the Air Curtains with integrated, aerodynamically effective "flics" accentuate the width of the car.

The lines of the front bumper and hood converge on the BMW kidney grille, as do the contours of the slim headlights. Standard on the new BMW M3 and M4 are full-LED headlights with U-shaped fibre-optic light guides for the daytime driving lights. Adaptive LED Headlights with BMW Laserlight are optional. Individual Shadowline Headlights, with darkened inlays adorning their upper edges, are also available.

The most striking design feature alongside the prominently flared fenders of the new M3 and M4 are the extended side sills. Together with the aerodynamic components of the front and rear bumpers, which also jut out significantly, they form a High-gloss Black band around the whole of the car. This racing car-inspired design element, also adopted on the first-generation BMW M3, increases downforce in the underbody area and helps to optimize aerodynamic balance.

The front fenders and rear wheel arches of both models have a flared **M**-specific design which creates room for the wider tracks and wheels that help to give the cars their cornering ability. The **M** gills familiar from past and present cars are integrated neatly into the distinctive surfacing of the front side fenders. The **M**-specific exterior mirrors have been aerodynamically optimized and painted High-gloss Black.

The roof of both the M3 and M4 is made from carbon-fibre-reinforced plastic (CFRP). This extremely lightweight material lowers the cars' centre of gravity. Two fins running longitudinally over the CFRP roof optimize airflow, as does the rear spoiler, painted in High-gloss Black. The rear diffuser is finished in black and frames the familiar exhaust system's twin pairs of 100 mm exhaust tips. The slim, darkened rear light clusters with L-shaped LED taillights extend into the fenders, further accentuating the width of the two new models.

M Carbon exterior package

An optional weight-minimized **M** Carbon exterior package is composed of inlays for the front air intakes, a rear diffuser, exterior mirror caps and a rear spoiler made from CFRP.

Interior Design

The latest interior design includes red accents for the **M** buttons on the **M** leather steering wheel and the start/stop button on the centre console. The gear selector lever with Drivelogic switch in the Competition models is leather covered with an embedded **M** logo and stitching in **M** coloursfeaturing an eye-catching cut-out, accentuated by integrated "waterfall" lighting.

The standard is the anthracite-coloured headliner and interior High-gloss black trim. Cars with the optional Carbon Fibre interior trim feature carbon inlays in the **M** leather steering wheel, and for the Competition models, carbon shift paddles with a unique design.

Standard heated **M** sport seats in fine-grain Merino leather trim have pronounced side bolsters, integrated head restraints and an illuminated model badge. **M**-specific perforation, which enhances the effect of the optional seat ventilation (available for the first time on the M3 and M4), and a contrasting colour for the centre section (depending on the variant chosen) raise the exclusivity level.

Optional electric front **M** Carbon bucket seats, making their debut on the M3 and M4, t combine racing functionality with lightweight design and comfort over long distances. The use of CFRP saves 21 pounds.

In track outings, when the driver and front passenger (if applicable) are wearing a helmet, the head restraints of the **M** Carbon bucket seats can be dismantled. Their racing-car-inspired structure also enables the use of optional multi-point seat belts and the seat position can be set lower than the standard **M** sport seats. The high Alcantara side bolsters help keep the occupants firmly in place during high G-forces.

Controls and Displays

BMW Live Cockpit Professional with a fully digital 12.3-inch instrument display and a 12.25-inch digital, high-resolution touch screen centre display is standard.

The latest iDrive 7 operating system includes Navigation with new cloud-based BMW Maps, wireless connectivity for your mobile devices including Apple CarPlay, Android Auto compatibility and BMW Intelligent Personal Assistant and **M**-specific displays for the instrument cluster and optional Head-Up display.

M-specific controls offer even more ways to adjust the cars' setup precisely to the situation at hand and the driver's personal preferences.

Setup Button

The new Setup button on the centre console provides direct access to the options for the seven powertrain and chassis settings. Pressing the button calls up the Setup menu in the Control Display, which lists the currently selected vehicle settings. The driver can now use touch control or the iDrive Controller to activate the desired mode for the engine response, damper settings, steering characteristics and brakes.

EFFICIENT, SPORT and SPORT PLUS settings can be engaged to modify the engine's characteristics, while selecting the COMFORT, SPORT or SPORT PLUS chassis mode provides

access to the three settings for the electronically controlled dampers. The driver can choose between COMFORT and SPORT modes for the **M**-specific Electric Power Steering and the new braking system. The Gear Shift Assistant can be deactivated via the Setup menu and **M** Traction Control, a feature of the optional **M** Drive Professional, offers ten-stage adjustment of wheel slip

control. In the all-wheel-drive Competition models, the driver can also choose from the 4WD, 4WD SPORT and 2WD settings for the **M** xDrive system, the latter delivering pure rear-wheel drive.

The M mode button

The **M** mode button, found on the centre console of the new M3 and M4, can be used to adjust the responses and characteristics of the driver assistance systems and the displays in the instrument cluster and optional Head-Up Display to deliver a driving experience suited to the situation at hand. The driver can choose from ROAD and SPORT settings, with TRACK mode additionally available when **M** Drive Professional is specified.

In the ROAD setting, all the standard and optional driver assistance systems are fully activated. Pressing the **M** Mode button engages the SPORT setting, in which the driver assistance systems activated through the driver's chosen configuration limit themselves to warnings of speed limits and overtaking restrictions, for example. All interventions in the braking and steering systems are suspended in this mode, except for inputs from the Frontal Collision Warning with braking function and the Evasion Assistant.

In SPORT mode the instrument cluster and optional Head-Up Display switch to **M** View, which only presents information relevant to sporty driving. The information shown includes an **M**-specific tachometer and Shift Lights, plus a digital speed read-out and gear indicator. A range of data including coolant temperature, charge pressure, tire temperature and pressure and lateral and longitudinal acceleration can be displayed in the right- and left-hand areas of the instrument cluster.

In cars with **M** Drive Professional, drivers can select TRACK mode. Developed exclusively for race circuits, this mode is activated with an extended press of the **M** Mode button. The driver must then confirm their choice using the iDrive Controller. This setting fully deactivates all the comfort and safety functions of the driver assistance systems. The Control Display is switched off to focus the driver's attention completely on the track. The instrument cluster and optional Head-Up Display switch to **M** View mode, with road sign detection and distance information also remaining hidden in the TRACK setting.

New M Drive Professional

Making its debut is new optional **M** Drive Professional, which has been developed specifically for track driving. This new option helps the driver to make consistent progress in pursuit of the ideal line and the perfect lap. Features include the **M** Drift Analyzer which records the duration, distance covered, line and angle of a drift with a rating shown on the Control Display.

Other functions include the **M** Laptimer, which provides a comprehensive amount of performance information, shown on both the optional Head-Up display and in the instrument cluster, beyond just recording lap times. As well as checking their current lap time, the driver can also keep a constant eye on how much quicker or slower they are than their fastest lap of the current session. The Control Display shows the number of laps completed so far, the distance covered and the duration of the driver's current stint. The driver can also analyze the data recorded during their track outing in detail using the BMW **M** Laptimer app on their Apple iPhone - and share selected information with the online community. Among the resources available are a bird's-eye map view of the track, a lap time comparison, data from the car's sensors such as speed, engine revs and accelerator position, and graphics showing the lateral and longitudinal acceleration values attained.

Advanced Driving Assistant package

Park Distance Control and Automatic High beams are standard as is Active Protection and Driving Assistant.

The optional Advanced Driver Assistance Package for the Competition models includes Active Cruise Control with Stop & Go, Extended Traffic Jam Assistant for limited access highways, Steering and Lane Control, Lane Change Assistant, Active Lane Keeping Assistant, Front Cross Traffic Warning, Crossroads Warning, Evasion Aid and Emergency Stop Assistant.

The latest generation of the optional BMW Head-Up Display system offers a 70 percent larger projection surface on which **M**-specific displays such as the multi-colour tachometer, Shift Lights and **M** View are shown.

The optional Parking Assistant Plus can identify parking spots to the left or right and steer the car into the parking spot. The Surround View with 3D view gives a top down view of the car and its surroundings which can also be accessed remotely by the BMW ConnectedDrive app. The included BMW Drive Recorder, which uses the driver assistance systems' cameras to record video sequences from outside the car of up to 40 seconds in length and can be exported to outside devices.

The Final Finish

There are two non-metallic colours, eight metallic colours (seven for M4) and five frozen matte colours to choose from with San Paolo Yellow, Brooklyn Metallic, Isle of Man Green Metallic and Frozen Brilliant White and Portimao Blue being among the new choices. There are also special-order Individual choices.

There are four standard Extended Merino Leather and four optional Full Merino Leather interiors.

High-Gloss Black interior trim is standard. Aluminum Tetragon Trim, Carbon Fibre Trim, BMW Individual Piano Black Trim, BMW Individual Aluminum Fabric Trim and BMW Individual Fineline Black Wood Trim with Silver Effect, Open-Pored are optional.

Source: BMW Canada Press Feeds

Sheni's Auto-Trend becomes a Noelle Performance Installer

Sheni's Auto-Trend recently became an authorized Noelle Performance Installer.

https://www.noelleperformance.com/

Noelle who?

Noelle Performance has a long successful history with founder Karl-Otto Noelle, who unbeknownst to many is one of the founders of BMW tuning.

Prior to 2018, Noelle Performance was the hardware and software supplier to the biggest BMW tuning houses around the world such as AC Schnitzer, Dähler, Dinan, G-Power, Hamann, Hartge, Manhart, MVR, PP-Performance, Tuningwerk, and Wiesmann.

In 2018, the decision was made to no longer supply other tuners with technology and to start offering it directly to clients through an exclusive network of top independent BMW shops. This decision was made because the newest generations of BMW's and their extremely sophisticated software was beyond the scope of the other tuners due to the complexity of the installation process. It was no longer possible to just "Flash Tune" the DME anymore. These tuners went to piggyback or hacked software products which in many cases just do not work or cause big problems including engine failures.

A new approach to tuning had to be adapted. Not only the DME, but all other related system control units had to be programmed or adjusted so the tune would work. Paramount to Karl-Otto was the retention of all BMW's safe guards within the software to protect the mechanicals. If your BMW has ever gone into a "Fail-safe" mode, that is the protection in the software to prevent mechanical failure. That is why Noelle Performance software does not negatively affect your warranty. It was also very important to remain 100% emission compliant.

Why is Noelle Performance the most comprehensive?

- Noelle programs the Engine and power-matches the Transmission, Electronic Differential, DSC, ABS, and the Sport Display
- No "Back-Dating" the DME
- Proper Flash installation without removal of DME from vehicle
- Works with 2020 Bootloader
- All factory safety parameters stay in place
- Unmatched power, unmatched drivability, and unmatched reliability
- Maintains your new car limited factory warranty
- All OEM Emissions Systems remain untouched
- No other modifications required
- Installed and maintained by the most talented shops in North America

Some history:

Karl-Otto Noelle got his start in the late 60's as a calibration engineer for Pierburg, a German carburetor and fuel injection company. He was directly responsible for final manufacturers' engine calibrations on vehicles such as the Austin Princess HLS, BMW 2002tii, Audi 100, Porsche 924, Alpina B6 2.8 and the B7 Turbo, as well as many others.

In the 70's Karl-Otto went to work for Alpina, a world-renowned BMW tuner as head engine development engineer. During his tenure at Alpina Karl-Otto was instrumental in many ground-breaking innovations, such as the metal substrate Catalytic converter, turbo charging, and chip tuning.

An innovator of chip tuning, Karl-Otto realized early on the potential for power from software optimization. One of the very first cars he chip-tuned was the 2.5 inline BMW 6-cylinder engine back in the early 90's. Numerous Automotive magazines have covered Karl-Otto's accomplishments and praised him for his insight and technical achievements. (See Road & Track, BMWBlog, and video reviews on The Smoking Tire YouTube channel)

In the mid 90's Karl-Otto went out on his own and formed Noelle Motors. While his products were available to discerning clientele the majority of time was supplying other tuner companies (mentioned above) with hardware or software solutions.

Noelle is also on Facebook and the following link shows an E90 M5 going from a stock 635 HP to 842 HP on a dyno test:

https://www.facebook.com/ron.trochelmann/videos/2983442741748297

Note that when you sign up for a Noelle package, the actual installation of the Noelle software is done from a remote Noelle site with your vehicle hooked up at your local shop. The shop handles all preparatory work and dyno verification.

Sheni's is currently in the process of adding a dedicated Dyno Room (relocating their existing unit) and clean engine build facility. We certainly expect to feature some innovative projects featuring Noelle Performance in the immediate future. And – yes – Noelle recently teamed with Liqui-Moly to insure that added performance is properly lubricated. Seems like Sheni already was working that angle ....

Sheni's Auto-Trend – Sourcing

Sheni's Auto-Trend has long been a quality maintainer and builder of great rides. One additional service is they will consider selling your car and perhaps more importantly, trying to find the car of your dreams. Tell them what you want and they will follow up through their vast network of contacts and ability to source cars through various auctions and dealers.

Contact Zuhair at Sheni's Auto-Trend for more information at (403) 243-3232 .

Member Cars and Garages

Jamie Carmichael's E92 M3 Rod Bearing Replacement

Jamie's latest project is a an E92 M3. The E92 uses the only V8 ever put into an M3 – the 414 HP S65 V8. Fun to drive and rev but long reputed to have early rod bearing failure due to tight bearing clearances. The S85 V10 in the E60 M5 has the same reputation. If you catch the problem early, usually through oil analysis and especially after 30,000 plus miles of high reving fun, you have a repair that can be done at a well-equipped home garage or for $2-4,000 smackeroos at your favorite auto repair facility. Failure to catch the problem and you could have catastrophic and very expensive engine failure requiring the total rebuilding of at least the short block. There is much debate on this as some engines last forever and others expire early and perhaps it has a lot to do with regular oil changes and how hard the car was revved while the oil was still cold.

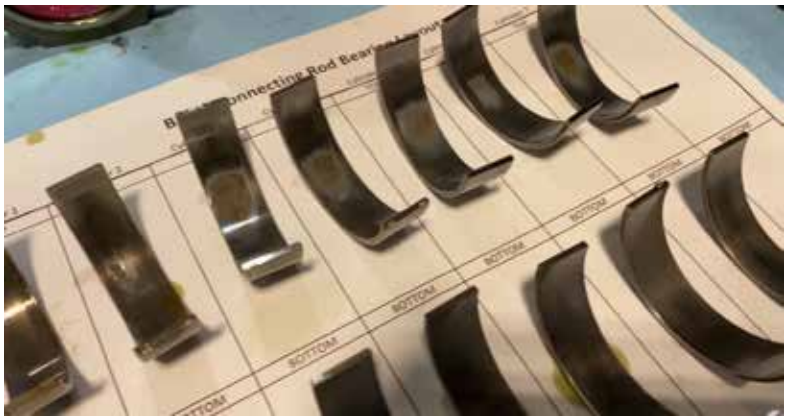
Jamie decided on preventative maintenance and handled the repair which involves supporting the engine from above and pulling the K member and some of the suspension and steering before draining and lowering the oil pan. After that, it is relatively easy to pull the bearing caps and slip the the bearings in and out. Note that the rod bolts are usually replaced at the same time.

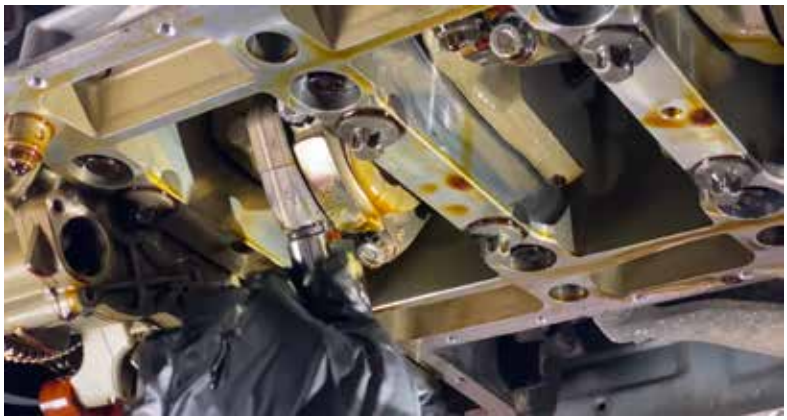
Usually, the motor mounts need replacement as that V8 loves to torque over. A sure sign is your engine sitting lower and especially if you look underneath and there is minimal clearance between the oil pan and the skid plate. And while you have things apart ....

One "did you know" from the following videos which detail the job, is that today many manufacturers including BMW forge the rod and cap as one unit and then fracture it into the two pieces. This means that each rod and cap is a unique pair and not interchangeable.

https://www.youtube.com/watch?v=gijJhMWg3RQ

https://www.youtube.com/watch?v=qqlD3iBC8cc





The Latest Thomas Schenk Project

You may recall Thomas Schenk's Gracie 2002 featured in last September's Freude am Fahren. Teaser shots of his latest project which is a 2002 track car for the Vintage or Classic races, are below. It has been in bodywork since September was freshly blasted at Consolidated Blasting. The hope is that it will be ready for assembly by the end of February.

Thomas' really neat trailer is a Futura which is an auto lowering trailer. The all aluminium construction makes them remarkably light to pull and the lowering feature makes it a breeze for one person to load a car. Thomas got his from Alfred in Abbotsford as there are no Alberta dealers. We will be taking up Thomas on his suggestion to do a photo spread for an upcoming issue on both the project car and trailer. More trailer info is at:

Aluminum Lowering Trailer | Futura Trailers

Hanger Find E31 850

Sheni's Autotrend and Fix Auto South Central have put a lot of effort into restoring one of the 850's from the High River Hanger find we have reported on over the last few years. This is a 1991 Automatic.

Last Month's Winner of Quiz

Yes – Allan Calagui, the ever-sharp Parts Manager at Calgary BMW, correctly identified the undercarriages of the M3 and M4 GTS sitting at Sheni's Autotrend on their showroom hoist. You can see the M4 GTS in the 850 photo above.

Classified

Interested parties can refer to www.bmwcsa.ca for additional photos in many cases.

For Sale: For 2002 M Coupe or similar model

Custom California car cover with mirror pockets, Thule roof rack, and four SSR Reiner Type 6 wheels with BMW centre caps with KUMHO ECSTA MX tires (1-2mm of wear remaining). Contact John Evison at 403-870-4557 or john.evison@shaw.ca

The Latest in Brain Buckets and Such

Editor's note: This is a first of a series and future issues will carry articles on neck supports and harnesses.

There is a growing buzz with Rocky Mountain Motorsports and perhaps Badlands Motorsport Resort being pavement ready in 2021, that folks should start preparing themselves and their rides. A helmet is always a must, but what you have on your shelf from days of glory past, is probably not going to meet today's standard.

When you are looking at your old helmet or considering a new one, there are several criteria to keep in mind:

1. Get the best you can afford - It's your protoplasm you are protecting!
2. Does it meet current specifications? (see below)
3. Does it meet your needs? (e.g. Open Face is usually ok for autocross or some schools but karting and track usually want Full Face with visor so multi-use is a consideration; consider compatibility with neck supports and belting plus radio communication)
4. Is it comfortable? (e.g. Fitting, air circulation and weight which is usually not a consideration for short durations and low G forces but high G forces and long times can be a bobble head experience). A Bell Helmets fitting link: https://bellracing.com/how-to-fit-a-helmet
5. Take care of it (e.g. UV and tossing it around can reduce life dramatically)
6. Talk to a professional like Shawn Bishop (see information below). There are many choices from some half-priced sale on yesterday's standard to $2500 Kevlar with a multitude of pros and cons and fitting issues.

Snell[1] is the generally acknowledged standard and applies to all types of sports including motorsports, bicycling, equestrian plus snow and ice. SA2020 covers competitive auto sports, M2020 is standard is for motorcycling and other motorsports and K2020 is for karting. There are two major differences among them:

- The SA standard requires flammability test while the M and K standards do not.
- The SA and K standards allow for a narrower visual field than the M standard. This means that some SA and K certified helmets may not be street legal.
- The SA Standard requires a threaded insert for the use of a Head and Neck Restraint.

More detail can be found at:

https://smf.org/stds
https://smf.org/standards/sa/2020/SA2020_final.pdf

Generally speaking, standards are revised every five years. While the use for certain events of the previous standard can be extended for a year or two past when the new standard comes into effect, manufacturers move onto the new standard quickly. For example, while you always need to check with the Event Coordinators and while both Snell and FIA are reviewing, SA 2010 (in good condition) can be used to 2023. However, all manufacturers are now using the 2020 standard.

The 2020 standard is an update of the 2015 one. Simpson's has been an acknowledge leader in safety equipment and from their site - Snell SA2015 vs SA2020 ... what's changed?

- The Snell SA2020 testing requirements have changed a small amount and have now become more in line with the FIA 8859 Helmet Standard.
- Details:
  - o Increased velocity by 5-10% for impact testing on the 2nd hit across all shell sizes.
  - o Increased velocity from 5.7 to 6.0 m/s on the 54cm to 59cm size.
  - o Increased peak G threshold on the 54cm to 59cm size and 60cm-64cm size.

The WESTERN CANADA MOTORSPORT ASSOCIATION (WCMA) TECHNICAL REGULATIONS effective April 2020 tell you everything you want to know about every class of racing and the safety requirements from helmets (Page 76) down to tow strap requirements for go fast opportunities in our geography:

http://www.wcma.ca/new/wp-content/uploads/2020/05/WCMA-Technical-Regulations-2020.pdf

These regulations are currently under review and we will publish an update when available.

Many thanks to Gary Leadbetter, Glen Cook and Shawn Bishop. Shawn has been a long-term supplier of safety gear to our community through his RALLYSPORT.CA . His contact info:

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http://facebook.com/rallysport.ca
http://instagram.com/rallysport.ca
http://bishop.ab.ca Link Grid

[1] Note that Fédération Internationale de l'Automobile (FIA) also sets standards and works closely with Snell. Both will use independent testing labs for certification of manufacturer's products. The New FIA Standard can be found at FIA 8859-2019: https://www.fia.com/fia-standard-8859-2015-premium-helmet-updated-04102019

The NEW BMW 2 series Gran Coupé is the embodiment of a new generation of compact BMW coupés. With its dynamically stretched silhouette and high-quality details such as frameless doors, this model fits seamlessly into the premium appearance of higher-class BMW Coupés.

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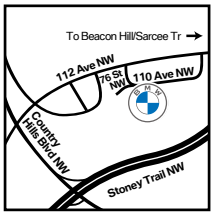

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