BMW
Body & Paint Training

Reference Manual

www.bmwcenternet.com

The Ultimate Driving Machine®

025

Online Resources for Collision Repair

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This training manual is not intended to be a complete and all-inclusive source for repair and maintenance. It is only a part of a training information system designed to assure that uniform procedures and information are presented to all participants in the BMW Group University Body & Paint Training Center.

The technician must always refer and adhere to the following official BMW service publications available in Integrated Service Technical Application (ISTA) & Aftersales Information Research (AIR).

- Service Information
- Repair Manuals
- Technical Reference Information
- Specifications

The information contained in the training course materials is solely intended for participants in this training course conducted by BMW Body & Paint Training Group or one of its approved vendors.

For changes/additions to the technical data, please refer the current information issued via the Integrated Service Technical Application (ISTA), Aftersales Information Research (AIR), and Service Information Bulletins.

Accredited Training Provider

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INTRODUCTION

Welcome to BMW and thank you for helping BMW help its clients and customers maintain their vehicles performing like only a BMW can!

Today's vehicles are a complex combination of advanced construction materials assembled with cutting-edge equipment and procedures, sophisticated electrical and electronic content, a myriad of driver assistance systems, powertrains that must meet stringent government-mandated emission and fuel economy standards, and the most advanced occupant and pedestrian safety systems. Servicing these vehicles does not need to be a daunting task, but it is virtually impossible to do without accurate and timely repair information in the hands of knowledgeable, conscientious and dedicated BMW repair technicians who participate in world-class training sessions offered by BMW.

After completing the sessions in this program, participants will be able to:

- Describe how BMW technical, vehicle, and customer information is organized, where it resides, and how it can be accessed
- Research a vehicle's Service History and identify any incomplete campaigns or recalls
- Identify vehicle features including any standard and optional equipment installed at the time of manufacture
- Understand the meaning of basic BMW abbreviations or acronyms
- Develop a logical body and paint damage assessment procedure
- Know how to find information such as part numbers, parts diagrams, and parts prices for any service parts that may be required

During this program, we will be exploring many of the BMW Online Resources and web applications, specifically those that are beneficial for collision repair professionals.

In this program, we will review:

- CenterNet[1]
- DCSNet[1]
- S-GATE[2]
- TIS2[3]
- AIR[4]
- TMSi[5]
- Electronic Parts Catalog (ETK)*

[1] Dealer Communication System, US BMW Centers
[2] Canadian BMW Dealers and Canadian CCRCs
[3] Technical Information System version 2
[4] Aftersales Information Research
[5] Talent Management System International
* Based on Associate's Access Rights in RSDM or DEMS

We will take an in-depth look at several of the applications that reside inside these primary sites such as:

- AIR
- ETK[1] (Electronic Parts Catalog)
- Model Map[2]
- Flat Rate Units (AIR)
- Parts Catalog (AIR)
- Parts Availability[2]
- TMSi (Talent Management System International)

[1]Not all centers will have access

[2]US Markets only

Currently, some of the websites that users can link to from CenterNet such as **DealerSpeed** are separate web applications with independent log-in requirements. These sites may require special access rights and passwords. One of the ultimate goals of BMW NA is to allow Center associates to log-in once and navigate from site to site using a single login without the need to re-key passwords at each site. Until that time, BMW NA will utilize pop-up windows within the web browser when a user clicks on a link or menu button to navigate to another BMW secure website that may require password authentication and a log-in code.

NOTE: This Manual contains information for both the **US** and **Canadian** markets. Information specific to the Canadian user is identified by a red Maple Leaf icon: Data specific to the US is marked with a flag icon:

BMW: BRAND AND CUSTOMER

There is a reason why BMW is the Ultimate Driving Machine. It is because of its history of engineering excellence. It's because every BMW responds with precision and agility. It's because of BMW's constant pursuit and commitment to technological innovation. The rich heritage of achievement, product development and resilience due to the legacy of BMW inventors, pioneers and engineers were captured in the BMW Online Learning course **OL2042**, **BMW History and Heritage** that all participants should have completed before attending this course. A more in-depth look at BMW and its history can be found in the instructor-led BMW Course **SB030, Brand Values.**

Both of these courses highlight some of the attributes that make BMW one of the most powerful brands in the world. It's not just about the BMW product…great brands are the result of great people…people who shaped the history of BMW, as well those who carry on its traditions well into the future. Courses OL2042 and SB030 both chronicle some of the most significant milestones in BMW's history.

1916	Founded as a technology company that manufactured aircraft engines
1917	Incorporated as Bavarian Motor Works. The scope of products offered by the company had expanded.
1923	First motorcycle produced (R32), achieves 59 mph
1928	Acquired its first automobile plant in Germany
1929	BMW enters and wins its first automobile race
1930	The BMW 303 is introduced: • First vehicle fully designed by BMW • First vehicle with "Kidney" grilles
1938	Aluminum bodied BMW 328 wins its class at the 1000-mile Mille Miglia road race

1939	BMW 328 wins 24 Hours at LeMans
1940	BMW 328 • Record-setting Mille Miglia victory • Average speed 103.4 mph; 139 mph top speed
1939-1945 (World War II)	BMW factories are destroyed
1952	BMW 501: first vehicle built completely in Munich
1955	BMW 507 • Introduced at the Frankfurt Auto Show • Design inspiration for the Z8 • 252 units sold • BMW's first "supercar" • Most sought-after BMW by collectors BMW Isetta • Coupe, convertible, minivan • Unique front door • Most successful vehicle in Germany at the time
1992	Spartanburg SC groundbreaking ceremony. First US plant for BMW.
1994	Spartanburg plant opened. Largest BMW plant in the world.
1995	Spartanburg produces its first vehicle BMW 318i rolls off the Spartanburg assembly line
1999	X5 Introduced: 35 months from concept to production

2004	BMW NA sells 296,521 units becoming BMW's largest subsidiary
2006	Spartanburg awarded "Top Plant" by Plant Engineering magazine • Use of recycled methane gas • Seamless changeover from multiple assembly lines to a single-line production process
2014	BMW i-vehicles are introduced • Electric and electric hybrid vehicles designed for everyday urban use • I01 and I12 feature carbon fiber Life Modules bonded to an Aluminum Drive Module chassis and sub-structures
2016	BMW G12 (7 Series) • Intelligent Lightweight Construction • Carbon Core • Advanced Driver Assistance systems (Driver Assistant Plus) • Gesture control, remote parking, display key
2017	BMW G30 (5 Series) • Intelligent Lightweight Construction (similar to G12) • Driver Assistant Plus • Available as a PHEV
2018	BMW G01 (X3) Sports Activity Vehicle • Intelligent Lightweight Construction • Active Kidney Grilles • Driver Assistant Plus BMW F39 (X2) Sports Activity Coupe • Inverted Kidney Grilles • Steel construction BMW G02 (X4) Sports Activity Coupe • Intelligent Lightweight Construction BMW I15 (i8) Roadster and Convertible • Updated Life Module; Drive Module has been reinforced • Fully automatic, electrically-operated convertible top • Retractable rear window acts as wind deflector • Frameless gull-wing doors BMW G32 (6 Series) • Replaces the 5 Series Gran Turismo • 4 Door • 640i xDrive (market Introduction) • Gran Coupe and Gran Turismo models

2019	BMW G05 (X5 Series) • Intelligent Lightweight Construction (similar to G series) • Driver Assistant Professional • Emergency Stop Assistant • Driver Camera System (DCS) BMW G07 (X7) • Intelligent Lightweight Design • Optional 5/4 Heating/Air Conditioning with second rear-mounted air conditioning unit BMW G15 (8 Series) • Intelligent Lightweight Construction (similar to G series) BMW G20 (3 Series) • Intelligent Lightweight Design • Seventh Generation 3 Series • Available as a PHEV (since 1972 E12) BMW G29 (Z4) • Third Generation Z4 • Intelligent Lightweight Construction • Fixed Rollover Protection Spartanburg produces 1,900 vehicles per day. Assembles the X3, X4, X5, X6, X7. Employs about 8,100 associates.

THE BMW CLIENT

BMW's independence and refusal to compromise aren't the only things that separate BMW from other car companies. BMW also has one of the most passionate and loyal customer followings around the world. Unbridled power and effortless style make immediate BMW enthusiasts out of just about everyone. It can be argued that many BMW owners are passionate about their vehicle. They demand and expect uncompromising performance, service excellence, and attention to detail.

No customer wants to deal with the aftermath of a collision or body and paint damage. BMW customers take great pride in the vehicles they drive. Damage to the vehicle's body and paint can be upsetting to the client. This is one reason why proper customer handling after a collision is so important. This attention to detail and customer concern are what separates the BMW collision center from others. It provides the BMW center with a chance to reinforce and build upon the relationship that has already been established with their clients.

The BMW center has a distinct advantage with its clients. BMW clients generally prefer to have their damaged vehicle fixed by a BMW center. The key is to focus on "fixing the customer first". The details of a vehicle damage report that spell out the technical aspects of a repair are important, but it is usually not the most important part of the interaction. The client's wants and needs must be identified, understood, and properly addressed. The goal is not to just simply repair their vehicle, but to assure that the customer will continue to drive BMW products and to remain a loyal customer of the BMW center.

t is also important that collision center associates, both technicians and support staff, understand the technical requirements of repairing a BMW. There are many resources available to the Center and their technical staff. Body Shop Estimators and BMW advisors should utilize these resources when preparing damage reports and work orders.

Estimators and BMW advisors should also take advantage of instructor-led and on-line technical training courses and on-demand resources. This is not just a matter of pride in workmanship, but understanding more about BMW repairs should help improve the Center's customer retention rates. For more information, please refer to BMW course **SB017**, **Collision Advisor Training.**

Further, BMW customers have shown a preference for having their vehicles repaired with Original BMW Parts. Estimators and BMW Collision Advisors should understand and be prepared to discuss the various types of replacement parts and why BMW Certified Collision Center use only Original BMW Parts. Remember, a collision center should be more than just a profit center at their facility; it should help the BMW Center maintain its customer base by providing a positive customer experience and the highest quality repairs.

In the case where a customer indicates that they prefer not to have their vehicle repaired, the Collision Advisor should be prepared to discuss the options available to the client. While the primary business of the Body Shop department is collision repair, the Advisor should be willing and able to discuss alternatives. The customer should always be presented with all of the available options in order to make an informed decision. In the long run, a customer that does not view a collision repair as the best solution will be difficult to satisfy, especially if they feel that they are being "forced" into having their vehicle repaired. These topics are discussed in greater detail in BMW course **SB023**, **Collision Advisor Sales Negotiation.**

SUMMARY

- Advisors need to make sure that they identify, understand, and properly address the client's wants and needs.
- The collision center support staff acts as an agent for the BMW Center. To assure long-term customer satisfaction, BMW Collision Advisors and Estimators need to focus on the things that are most important to their client.
- Be aware of the technical requirements of repairing a BMW and be prepared to explain these requirements in simple terms to the BMW owner.
- Collision Advisors must also be mindful of the BMW Center's policies regarding repair procedures and customer handling.
- Be prepared to discuss vehicle replacement options if the BMW client prefers not to have their damaged vehicle repaired. The collision center management team and support staff should have frequent discussions with Center management about the services that the BMW Center can provide to its customers that are considering vehicle replacement in lieu of collision repairs.

A GOOD START

OVERVIEW

In this module, we will discuss:

- How BMW technical, vehicle, and customer information is organized, where it resides, and how it is accessed
- The importance of accessing the **Service-Vehicle History** section of **DCSnet** or **AIR** and the information that can be found there
- How to identify vehicle **features** including the **standard** and **optional equipment** installed at the time of manufacture
- Basic BMW **Abbreviations or Acronyms**, and where to find the complete list of their definitions

This section will help Center associates develop a logical procedure for getting started with a repair: identifying the vehicle, determining any key service requirements, and knowing how to find any parts required for the work to be performed.

ONLINE RESOURCES - DEVELOPING A REPAIR PLAN

A repair professional should develop a logical procedure for identifying the vehicle, the optional equipment and accessories, the technical repair requirements, and conducting a brief review of the vehicle's **Service History**. In certain instances, it may be desirable to check parts pricing and parts availability before scheduling repairs with the BMW owner.

The most basic repair planning procedure should include, but not be limited to, these items:

1. Obtain the Vehicle Identification Number (VIN).
2. Look for any external model designations or indicators.
3. Perform a visual damage assessment.
4. Perform a Key-Read and check the Vehicle Service History.
5. Identify vehicle options and any Driver Assistance systems
6. Perform a review of technical repair documents found in AIR such as the Repair instructions, Flat Rate Units, SIT[1] Technology and any Service Information Bulletins.
7. Create a repair plan, noting component all replacement requirements after identifying all pertinent BMW repair policies in AIR or the Flat Rate Guide.
8. Obtain information about any required service parts.
9. Identify any acronyms found in the vehicle description or repair instructions.
10. Check and confirm Parts Pricing.
11. Verify Parts Availability.

[1]Service Information Technology

There are two primary websites where BMW Centers (USA) can access detailed information and find other resources:

- CenterNet
- DCSnet

Illustration 1: The DealerSpeed Login Page (USA)

CENTERNET

Previously, **CenterNet** was the primary website and the landing page when launching most BMW online resources. Although there are a large number of applications that help with Sales and Marketing, this training program will focus on repair-specific applications that are useful for the staff at BMW collision repair centers. Many of the technical resource applications have transitioned to **DCSnet**.

CenterNet - To Get There

1. Launch **BMW CenterNet**: go to **https://www.dealerspeed.net**
2. Enter a valid UserID (User name) and Password. Both fields are case sensitive.
3. Select **CenterNet**

To be granted access to the BMW sites, users must first be entered into the Dealer Employee Management System (DEMS) by the CenterNet Administrator at the BMW Center. This administrator should follow BMW guidelines for granting access rights. Specific login rights will allow users to access certain sites; not all sites can be reached by all users. Individuals are granted basic rights based on their BMW job codes. Specific User Access Rights can be added or restricted by the DEMS administrator at the BMW Center. Additionally, access to several sites is restricted by the associate's brand alignments. Please check with your DEMS administrator if you cannot access a site for a BMW affiliated brand such as MINI or BMWi that your dealership may also carry.

CenterNet passwords expire after 30 days. Users must renew their password to access the site when their current password expires. Presently, there is no limit to the number of times that a password can be reused. Like all passwords, Center associates should protect individual passwords and treat this information as confidential.

S-GATE

The intended purpose of S-GATE (Sales Group Access and Data Transfer System) is to provide a Business to Dealer (B2D) platform for simple and uniform access to all BMW applications found in the B2D area of BMW Group Canada. S-GATE provides a single sign-on to all applications that are integrated in the S-GATE portal. To access the S-GATE home page, the user must successfully log in. After the login, the S-GATE home page is then displayed. Applications can be started by accessing the various links found in the S-GATE menu selections.

The S-GATE homepage includes a Favorites column, provisions to change the preferred language, a Help screen, and a logout function.

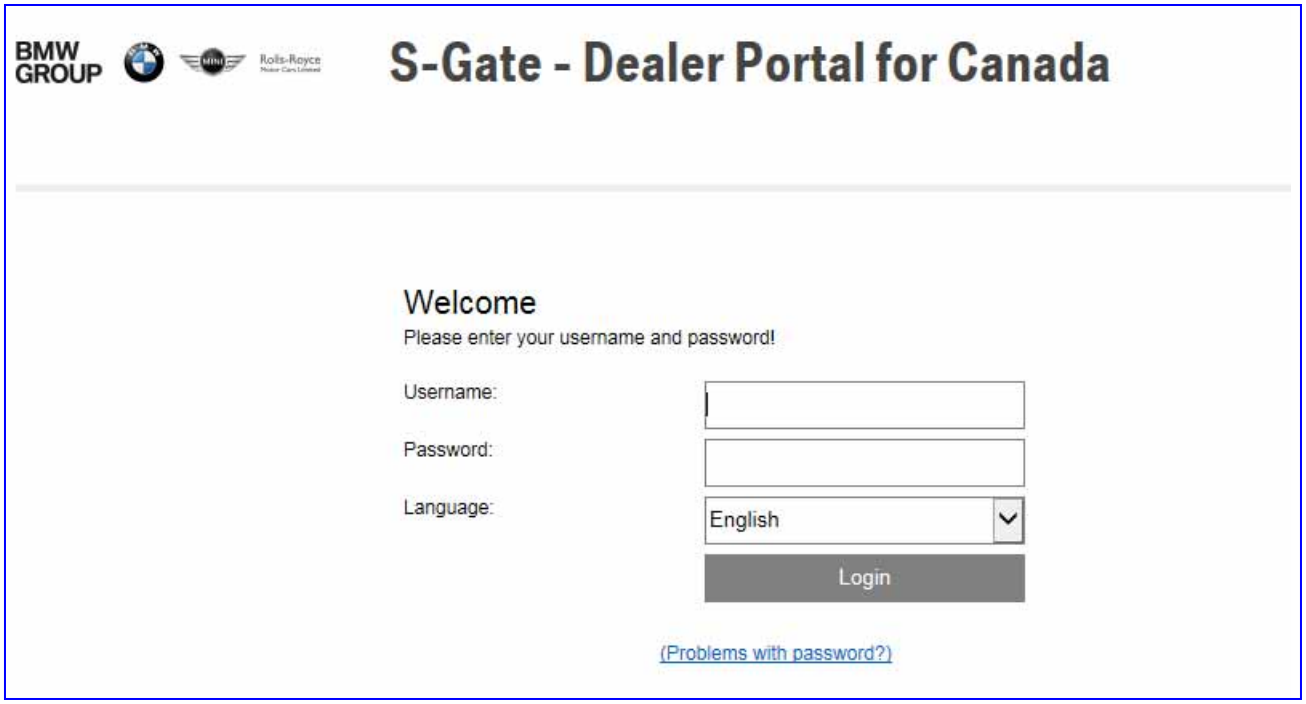
S-GATE is the portal that Canadian users will use to enter a suite of BMW applications. Like DealerSpeed, usernames and valid passwords must first be assigned to repair center associates by the BMW dealership's Retail Staff Directory Maintenance (RSDM) system administrator (RSA).

From S-GATE, users can navigate to most of the sites referenced during this session.

S-GATE - To Get There

1. Internet: Go to the B2D portal at **https://sgate.bmwgroup.com/ca**
2. From within a BMW Corporate network: **https://sgate.bmwgroup.net/ca**
3. Enter a valid UserID (Username) and Password. Both fields are case sensitive.
4. Select the **Language** you prefer from the **Dropdown List.**

Illustration 2: The S-GATE Login Page



To be granted access to the BMW sites, users must first be provided with a login name and initial password from the BMW Canada dealership. The dealer's RSDM system administrator should follow BMW guidelines for granting access rights. Specific login rights will allow users to access certain sites; not all sites can be reached by all users. Individuals are granted basic rights that are associated with their BMW job codes. Additionally, access to several sites is restricted by the associate's brand alignments. Please check with your dealer's RSDM system administrator if you cannot access a site for a BMW-affiliated brand such as MINI or BMWi that the sponsoring dealership may also carry.

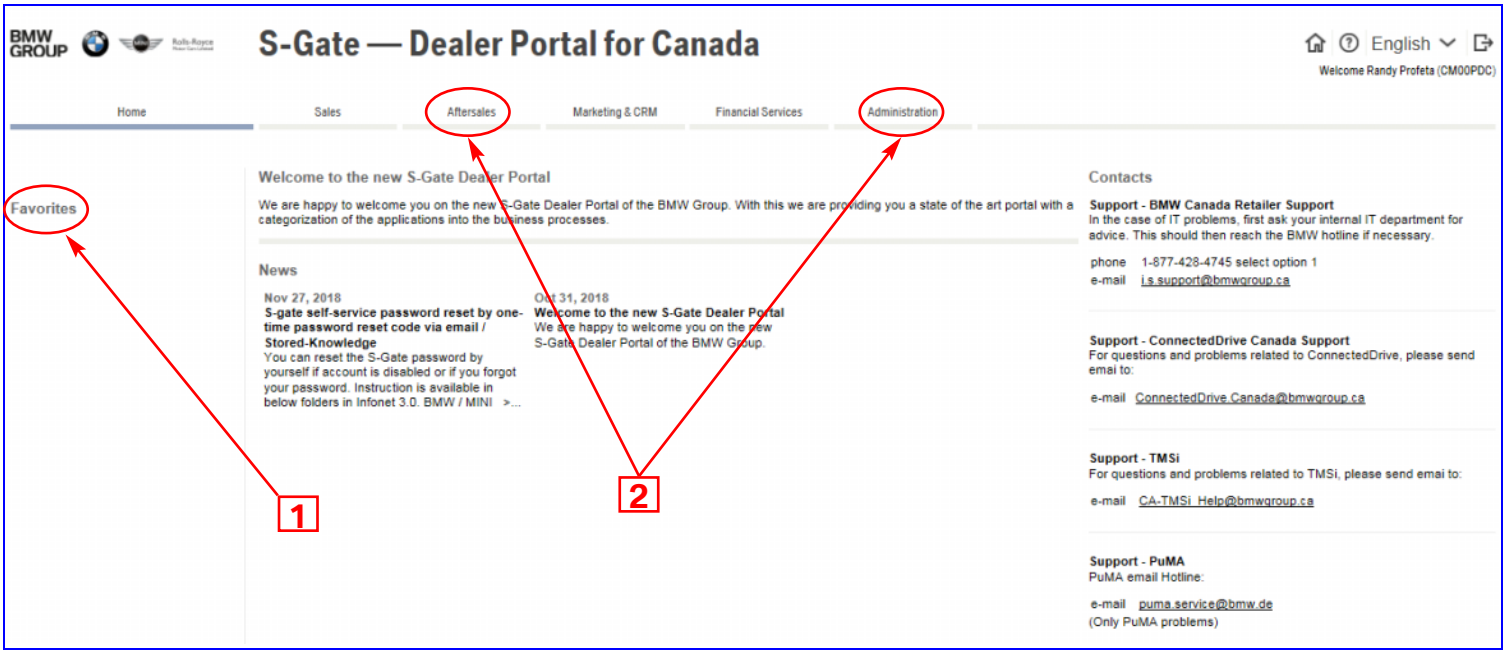
S-GATE passwords expire after 30 days. Users must enter a new password to access the site before their current password expires. Presently, there is no limit to the number of times that a password can be reused, although the new password must be different than the previous three passwords.

S-GATE users can change the password associated with a specified **UserId** but not for their **Q-number**. To change the password users can select the **Store Knowledge** link on the Administration tab found on S-GATE home page. Store Knowledge will be covered later.

New password should comply with these rules:

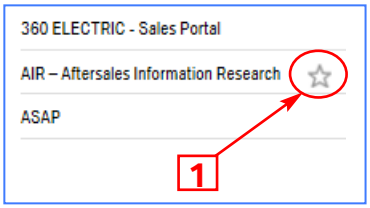
- Password character sets can only include letters, numbers, '#' and '$'
- Must be exactly eight (8) characters long
- Contain at least one (1) and no more than four (4) numbers
- Be different than the UserID or the Name
- Cannot have any immediate recurrence of characters
- New Passwords cannot be the same as any of the last three (3) passwords that were used. The user's password needs to be changed every 30 days.
- Dormant accounts (unused for 30 days or more) will need to have passwords reset.

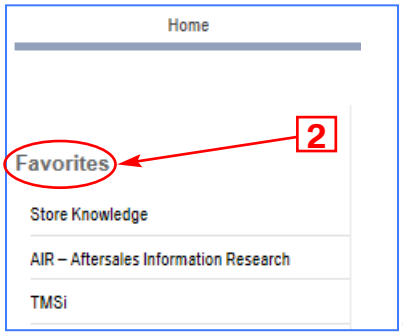
Illustration 3: The S-GATE Home Page



S-GATE - ADDING FAVORITES

Users can easily add their favorite sites to the S-GATE home page (#1, previous page). CCRCs should consider adding frequently visited sites from the **Aftersales** and **Administration** menus. To do this , open the specified link (#2, previous page) by clicking on it and then from the menu of applications that appear, click on the hollow star to the right of the desired application (#1, below). The star will turn solid gray indicating that it has been added to the **Favorites** list on the S-GATE home page (#2, below).





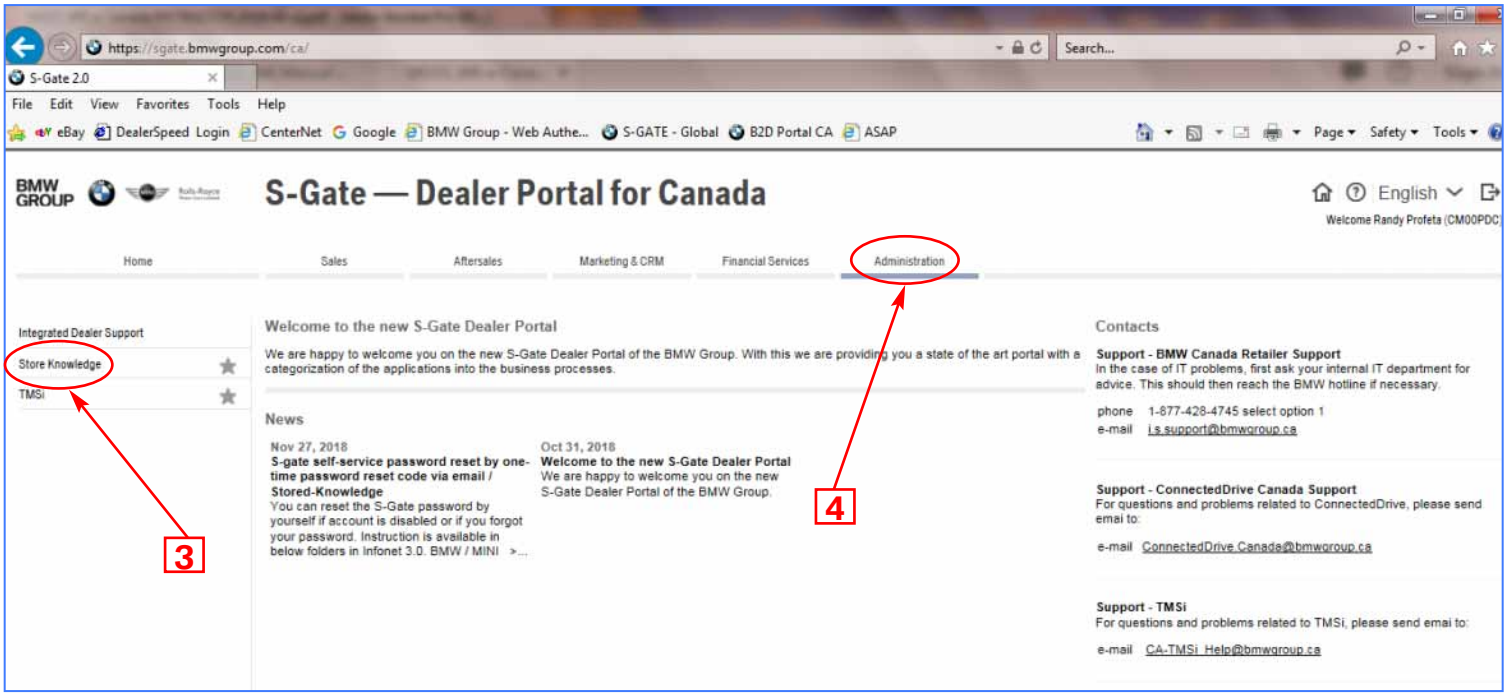
S-GATE PASSWORD RESET

Canadian users should be familiar with the process for resetting passwords. Using the Stored Knowledge feature can save a call to the BMW Canada support hotline. This function provides more independence for S-GATE users, allowing for a quick and easy solution to password resets. This helps reduce administrative efforts.

The password reset function provides a new temporary one-time-use password. In cases where a password has been forgotten, has expired, or has exceeded the number of attempts, the Store Knowledge application provides an alternative way for accessing S-GATE. The reset function will only work if the user has taken care to set up the "stored knowledge" function before a reset is required. Stored knowledge is considered confidential information and should only be known to the user for identity verification.

In the upper right side of the S-GATE landing page, users will find the Administration link (#3, below). After clicking the Administration link, the Store Knowledge link will be displayed in the left margin (#4, below).

Illustration 4: S-GATE Store Knowledge Password Reset



VEHICLE INFORMATION AND IDENTIFICATION

Many applications such as AIR and the WebEPC are driven by the Vehicle Identification Number (VIN), and the only thing a Center associate needs to do to access needed data specific to the vehicle is to enter the vehicle's serial number. Many times, however, a BMW product can be quickly identified without launching AIR or other technical applications.

There are several ways to identify BMW Vehicles and their components:

- Internal Designators
- External Designators
- Vehicle Identification Number (VIN)
- Paint Codes
- Engine and Transmission Indentifiers

Before starting any repair, it is important that the Advisor, Technician, or any other Center associate correctly identify the vehicle by model (platform), know what features it has, and identify the optional equipment that was installed during manufacture.

Internal and External Designations

BMW uses two different methods of identifying its vehicles:

- Internal Designations are used by BMW and Center personnel to identify a particular production version.
- External Designations are for customers to identify BMW products. These are marketing designations commonly referred to as trunk badges.

To simplify vehicle identification, the platform (Internal) identifier is typically used. To illustrate this point, the BMW 3 Series has been continually in production since 1975 and is in its seventh generation. The 328i Sedan has been manufactured since 1990. It was first built on the E36 platform, and was later followed by the E46, E90/91/92/93, and the most current platform, the G20. To date, this model has spanned three different, unique platforms. To compound the matter, the platform may also be used for various powertrain combinations. For example, in addition to the 328i, the F30 platform is also used on the 320i and 330i models, both rear wheel and intelligent all-wheel drive.

Illustration 5: Seven generations of the 3 Series

E21	E30	E36	E46	E90/91/92/93	F30/31/34	G20
1975-83	1984-93	1992-2002	1999-2006	2006-11	2012-18	2019-

Internal Designations

Internal designations are created and used by the Engineering and Technical Development departments to identify a new model during the design phase of the car. The use of the internal designations carries over to the Technical Support groups after production. Internal designations refer to the entire vehicle series of a particular body design. For example, the E46 designation describes all 3 series cars of that design. BMW products start with an alpha character such as an “E”, “F”, “G”, and “I” and are followed by a two-digit number. Not all design concepts make it into production, so internal designations are usually not sequential. These designations can include an additional number separated by a slash (/) to indicate a different model within a particular chassis group.

Examples:

- E36/7- Z3
- E36/5- 318ti
- E46/3- Sport Wagon
- E46/2- Coupe
- E46/16- All-Wheel Drive

External Designations

External designations located on the trunk, tailgate, or front door are the model names. Customers and the public identify BMW products and vehicle characteristics by these names. From a marketing perspective, these names help customers crete a mental image of the vehicle and recognize the place it occupies in the BMW lineup by the external designator.

The trunk badges consist of a combination of numbers and letters. The badge shown below is typical of 1, 2, 3, 4, 5, 6, 7, and 8 series vehicles. The first digit represents the series. In the past, the last two digits may have represented the engine displacement or output. The final character represents the engine’s fuel system and type of propulsion or drive system.

- i - Fuel Injection
- d - Diesel
- E - Active E (Electric or Hybrid)
- H - Hybrid
- sDrive - 2-wheel drive (front or rear)
- xDrive - All-wheel drive
- L - Long wheelbase (or Lightweight, 3.0 CSL)

The external designations are created by the BMW Sales and Marketing department to position each model in a certain target segment of the vehicle sales market. Today, there are many examples where the actual engine displacement does not match the exterior designation. This is a marketing decision to continue familiar name recognition from one version to the next and to create a spacing between models.

BMW now groups vehicle classes by body style. Even-numbered vehicle series are two-door models and odd-numbered vehicle classes consist of four door sedan body styles, although in some lines there may be a Gran Coupe 4-door (4-Series) or Gran Turismo body styles (6-Series). Even numbered vehicles also offer soft top versions.

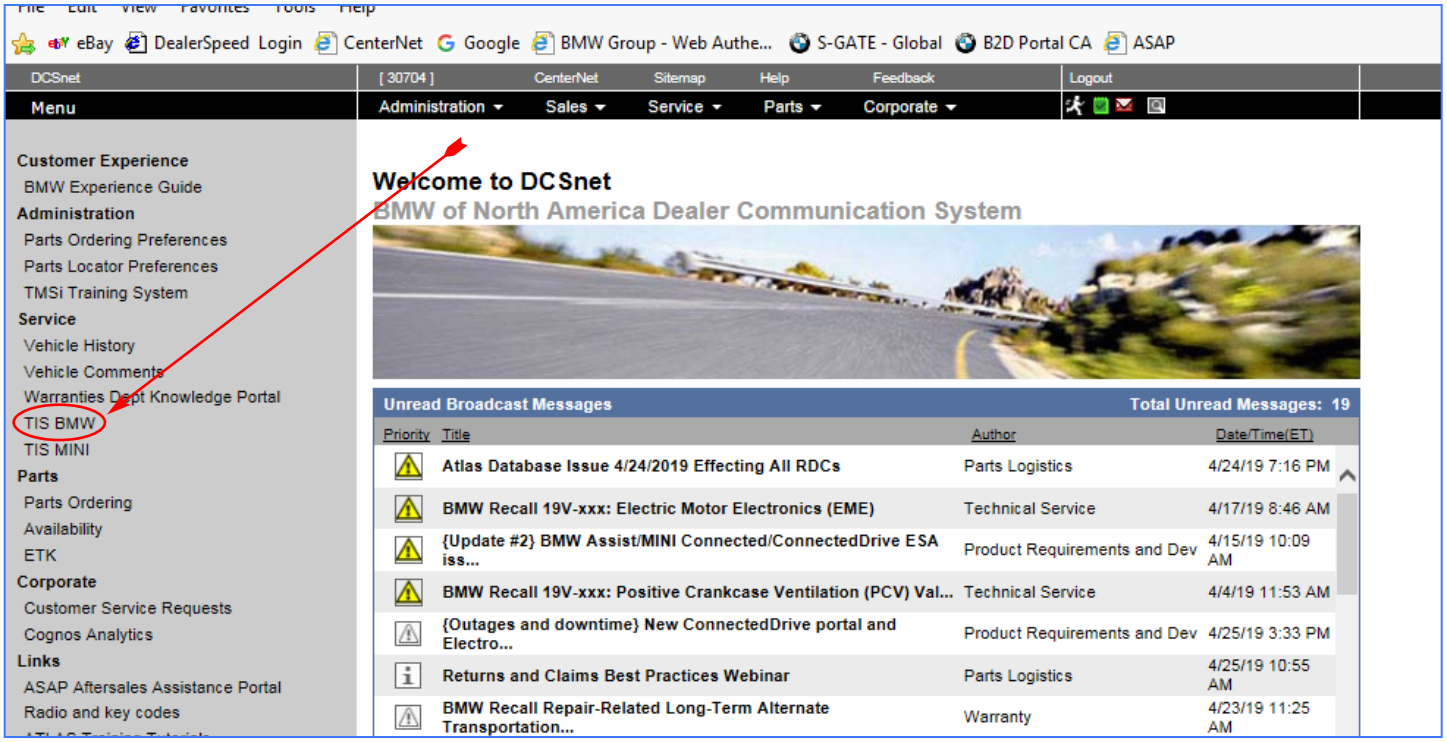
MODEL MAP

To help quickly identify the platform, a Center's associates (US) can use the **Model Map** feature found in the BMW Technical Information System (TIS) section. The TIS application is now accessed through DCSnet.

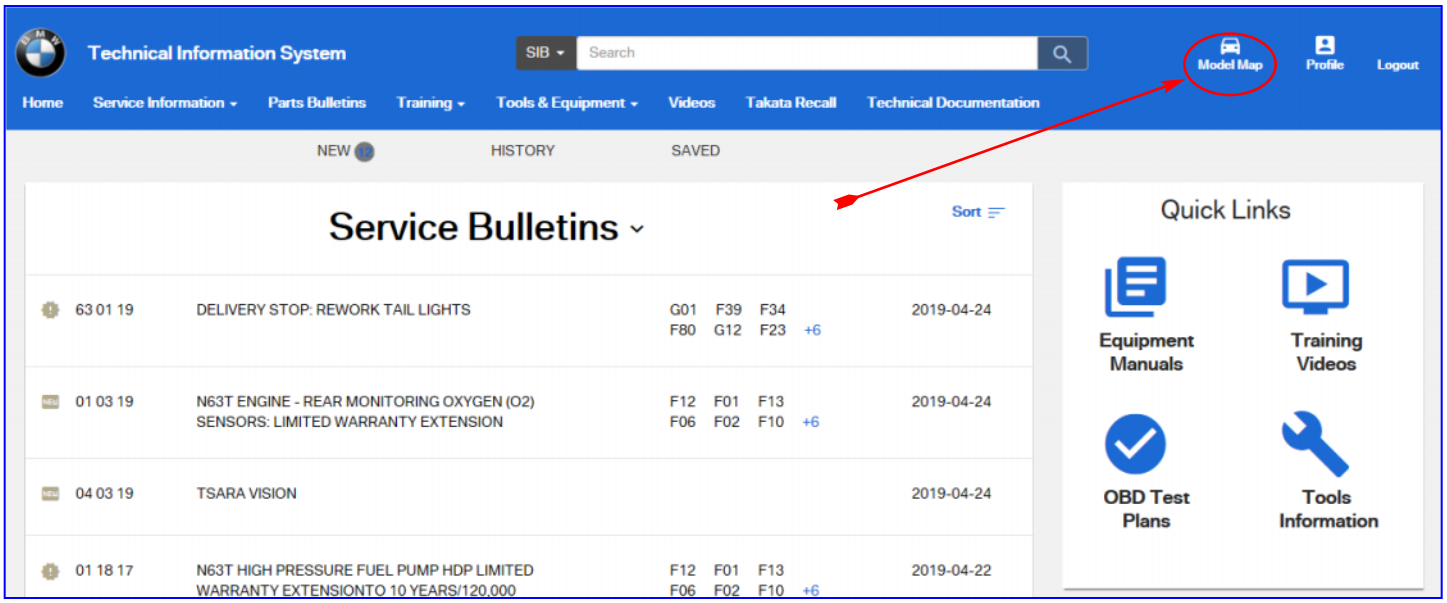
Model Map - To Get There

1 Go to **https://www.dealerspeed.net** and enter a valid Username and Password. Select **DCSnet.**

2 In the left margin, of the DCSnet homepage, select **TIS BMW.**



3 Launch the **Model Map** by clicking the icon in the upper right of the TIS 2.0 home page.



When using the Model Map tool, it is usually best to specify the model year first. In this way, the user will only need to scroll through models that were available for that particular year.

MODEL IDENTIFICATION

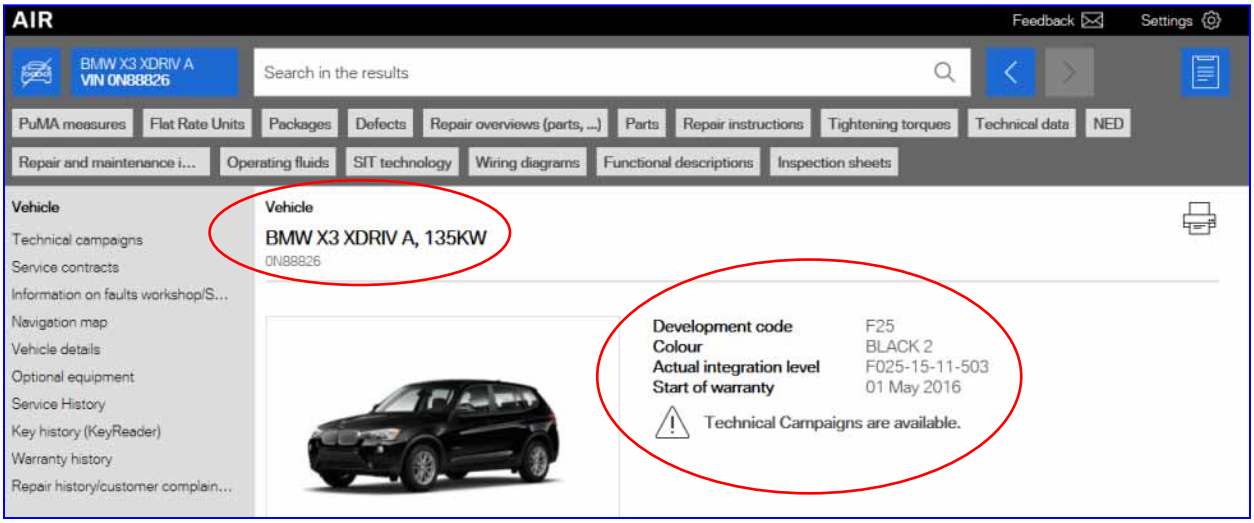
BMW model **Engineering Codes,** sometimes referred to as a **Chassis Code, Platform Code,** or **Development Code**, as well as their External Identification can be easily accessed by using:

- AIR
- The Electronic Parts Catalog (ETK)
- The Model Map

The Model Map has been reviewed. The other applications are covered in more detail later in the program.

AIR provides the quickest and easiest way to identify the Development (Engineering) Code. For most models, the vehicle's external designator as well as a generic image shown in the vehicle's color will be displayed on the AIR start page once a valid Serial Number (the last seven characters in the VIN) has been entered.

Illustration 6: The Designation Code and External Identifier (AIR)



AIR also provides more information about the vehicle that the advisor will find useful. Previously, this information could only be accessed by launching other web applications such as DCSnet, KSD, and the WebEPC.

AIR provides the advisor with quick access to:

- Warranty Start Date
- Outstanding Technical Campaigns
- The complete VIN Number
- Engine and Transmission Codes
- Production Date
- Paint and Upholstery (Interior) Codes
- Model Code
- List of Options with Codes installed during manufacture
- Basic Service History with Dealer Code
- Key Reader data
- Warranty History including Maintenance Plan information
- Repair History

AIR provides users with a list of Option Codes for those optional items or option packages installed during assembly at the plant. While AIR can help identify many individual options, users may also need to determine the contents of some option packages. The procedure for identifying the contents of the various option packages will be covered in the last module, **The BMW Associate.**

AIR: To Get There

1 Enter the S-GATE Dealer Portal at **https://sgate.bmwgroup.com/ca** and enter a valid **User Name** and **Password** (Illustration 2, page 15).

2 At the top of the page, click the **Administration** link (Illustration 3, p16, #2) and then select **AIR - Aftersales Information Research**. Enter the **Serial Number** (Illustration 10, #1)

3 **Optional:** vehicles can be found using the **Search with Basic Features** function (Illustration10, #2). This takes more time and will not show vehicle options since a serial number has not been entered.

Illustration 9: Launching AIR from the S-GATE homepage

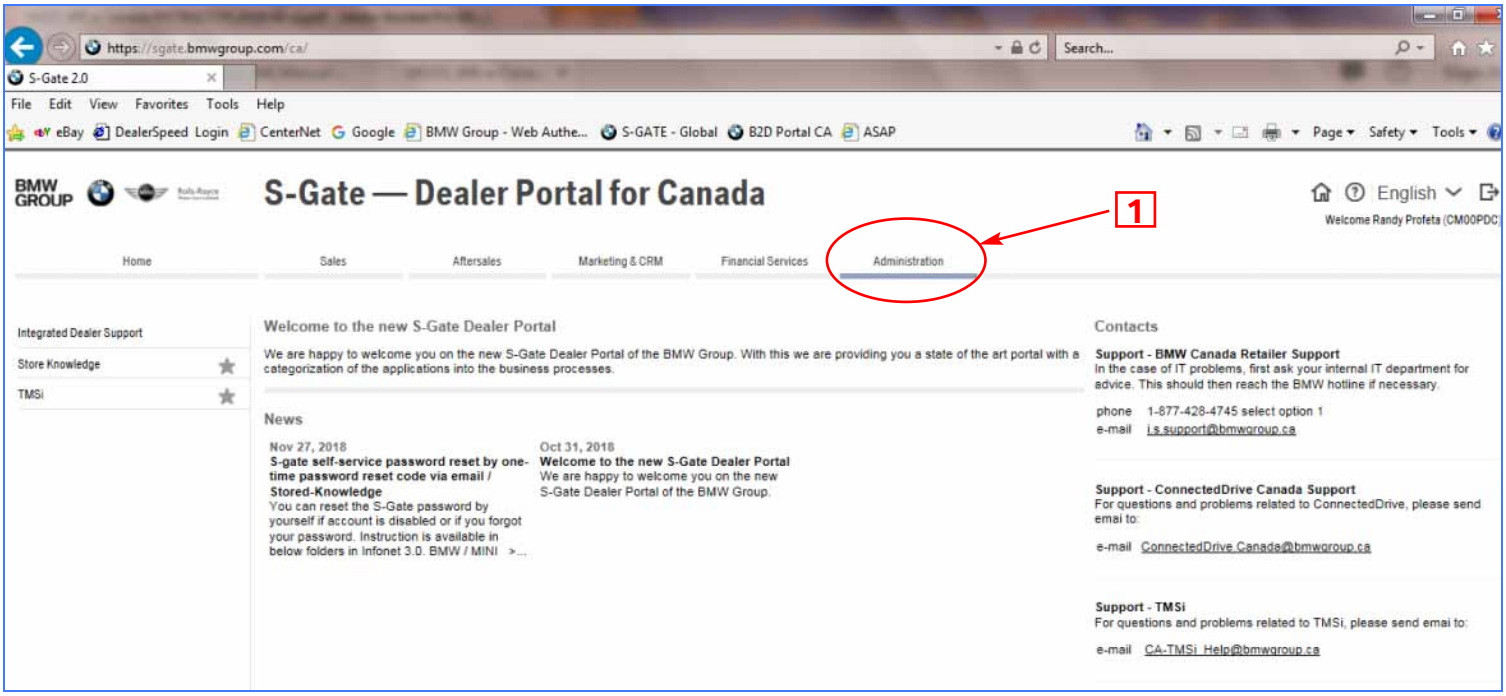
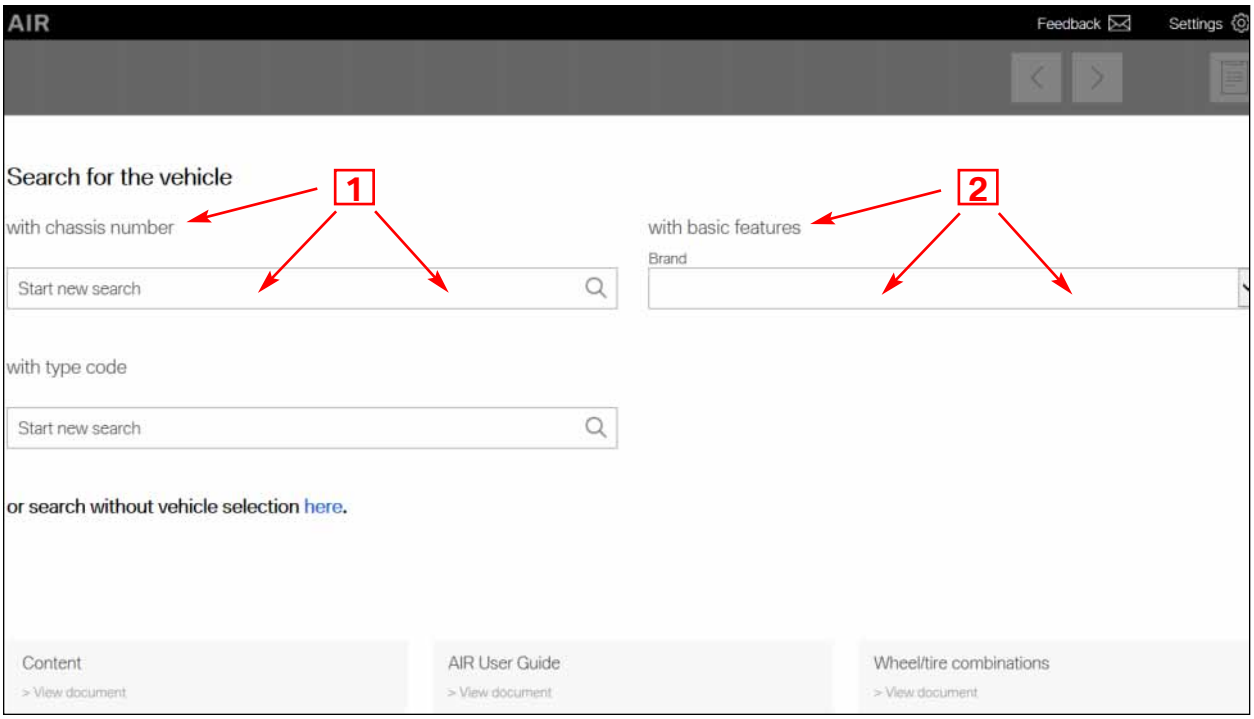


Illustration 10: Vehicle Information



AIR: To Get There

In the US, **AIR** can be accessed from **DCSnet**. Some centers access AIR through their intranets using ISPI and this application can be launched directly from a desktop icon. AIR can also be accessed using a web connection and any supported browser. This means that center associates can access AIR at remote locations from any PC (with appropriate hardware, software, browser, login credentials) and still have most of the functionality built into the system. During this program, we will be using a web connection.

To access AIR:

1. Start Internet Explorer or another BMW-approved web browser
2. Log onto DealerSpeed at **https://www.dealerspeed.net/main/** and enter a valid username and password.
3. Navigate to **DCSnet**
4. In the black menu bar, click on **Service** (Illustration. 11)
5. From the **Service** dropdown menu, select **Aftersales Information Research** (Illustration. 12)

Illustration 11: The DCSnet Service menu tab

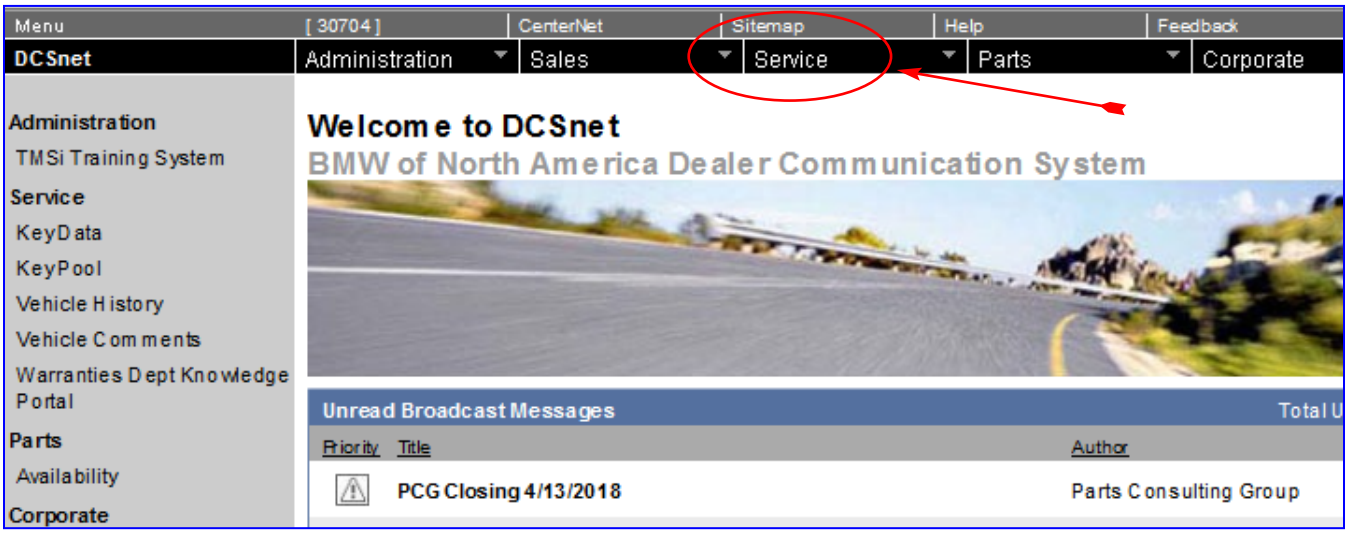
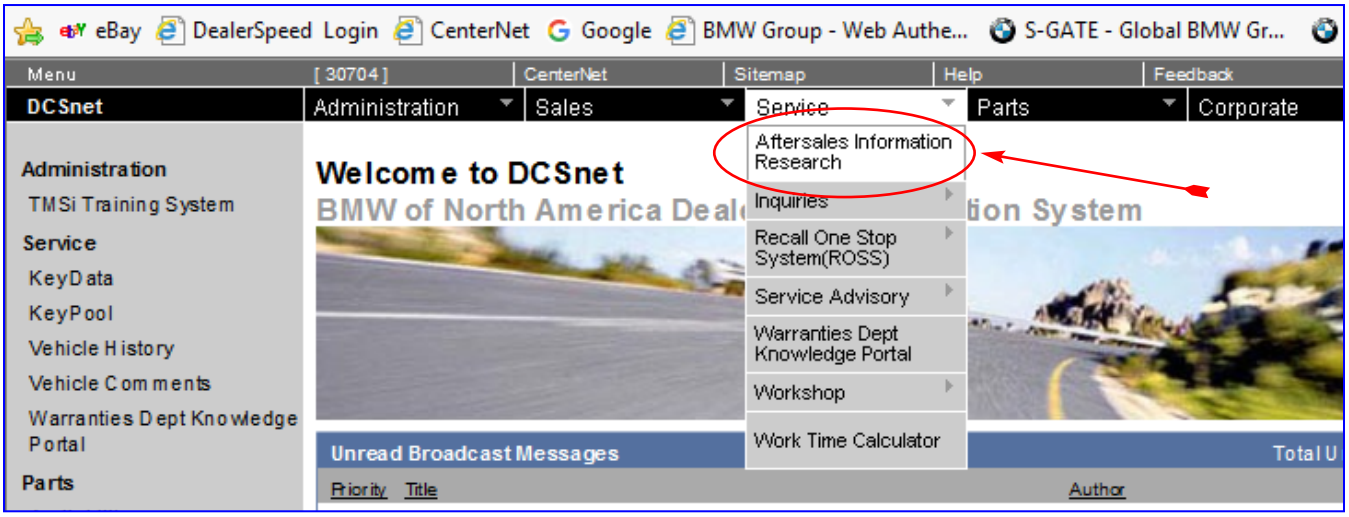


Illustration 12: The Service dropdown menu and the AIR application



ELECTRONIC PARTS CATALOG

The **Electronic Parts Catalogue (ETK)** can also be utilized to identify BMW vehicles. This site is now accessed from **DCSnet**. This site requires the acquisition of additional user access rights. BMW CCRCs will need to contact their **Dealer Employment Management System** (DEMS) administrator to secure the needed access rights. In Canada, the **Retail Staff Directory Maintenance** (RSDM) system administrator (RSA) needs to be contacted.

Since the ETK and DCSnet contain confidential information such as customer data or parts pricing, access to certain applications for Independent Repair Facilities (IRFs) is entirely at the discretion of the BMW Center both in the US and Canada.

ETK: To Get There

1. Enter the **S-GATE** Dealer Portal at **https://sgate.bmwgroup.com/ca** and enter a valid **User Name** and **Password** (see page 15).
2. At the top of the page, click the **Administration** link (Illustration 9 #1, page 22).
3. From the **Aftersales** homepage, select **ETK**.
4. Select **Components of Vehicle** (Illustration 13).
5. Enter the last seven digits of the vehicle's VIN (illustration 14)

Illustration 13: The ETK homepage

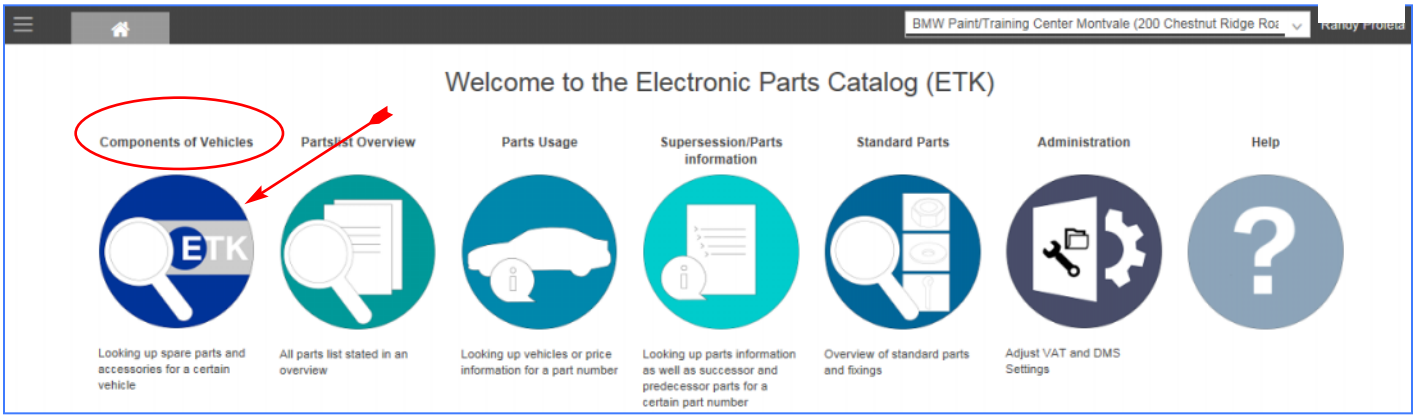
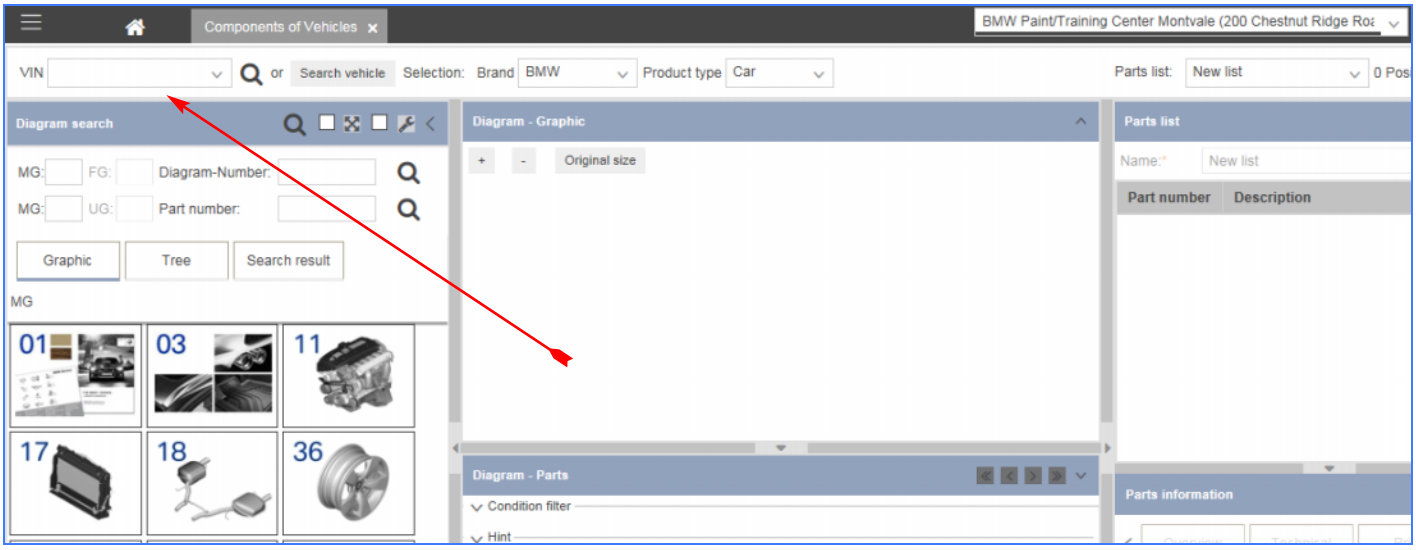


Illustration 14: The ETK application



ETK: To Get There:

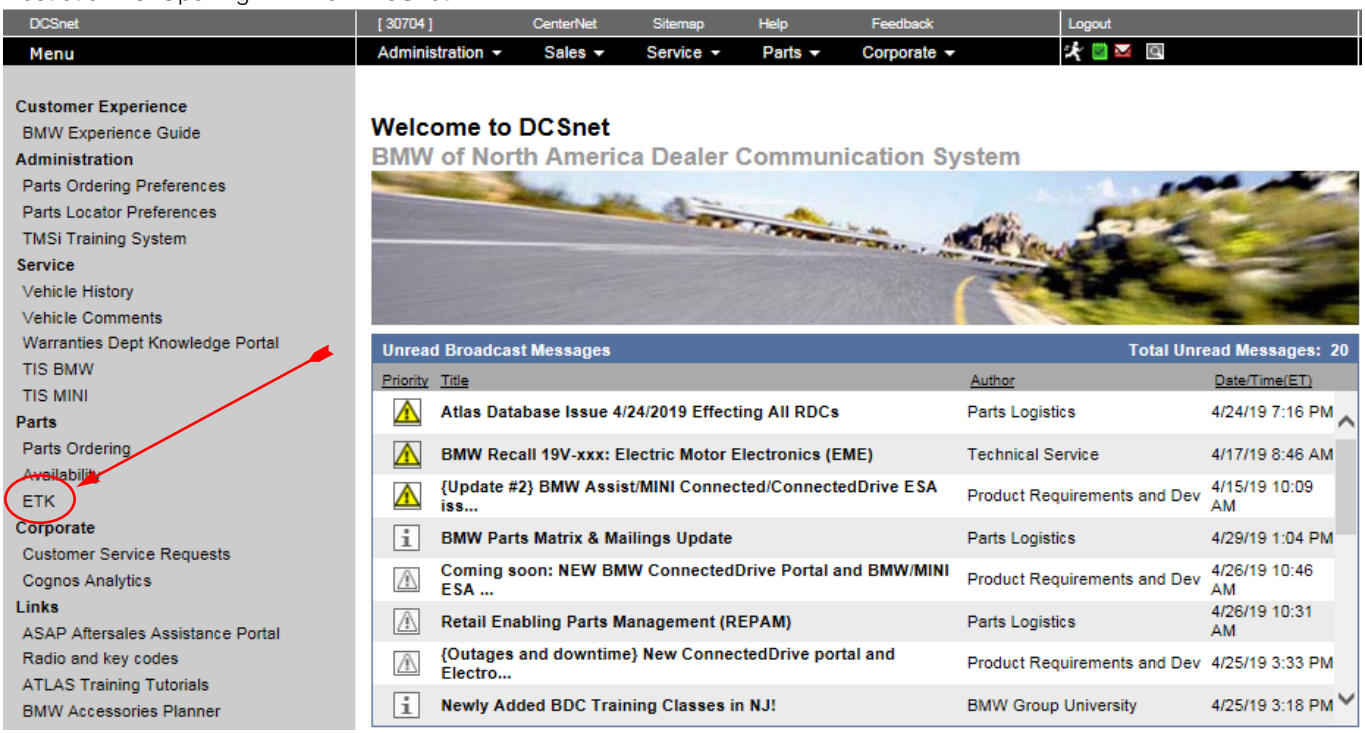
1 Start a compatible web browser

2 Log onto **DealerSpeed** at **https://www.dealerspeed.net/main/** and enter a valid username and password

3 Navigate to **DCSnet**

4 In the lefthand margin, click the **ETK** link

Illustration 15: Opening ETK from DCSnet



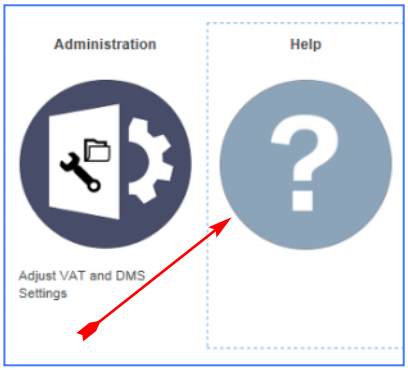
BMW ACRONYMS AND ABBREVIATIONS

As a BMW associate researches the various BMW publications and websites, they will find many abbreviations and acronyms. An acronym is a word formed from the initial letters of a phrase such as SCUBA or RADAR. The list below describes various systems on BMW Group automobiles and SAVs. This list will continue to grow. The BMW Group is a dynamic company and is always adding new systems to its products. BMW associates should look for new systems and acronyms in all new Technical Training courses, Service information, and Service Information Bulletins.

A	Processed Vehicle Speed
AB	Airbag
ABS	Anti-lock Braking System
ADS	Engine Intake Air Control
ADV	W/wiper Pressure Control
AGS	Adaptive Transmission Control
AIC	Automatic Interval Control (rain sensor)
ARS	Active Roll Stabilization
ASC	All Season Traction
ASC+T	ASC+Traction
ASK	Audio System Controller
AST	Slip Control (Marketing term)
AUC	Automatic Air Recirculation
B	Benzene (gasoline)
BC	Board Computer
BC1	Body Controller 1
BLS	Brake Light Switch
BMBT	Board Monitor
BS	Block Diagram
BST	Battery Safety Terminal
BZM	Center Console Control Center
CAS	Car Activation System
CBC	Corner Braking Control
CAN-Bus	Controller Area Network(bus)
CCM	Check Control Module
CIM	Chassis Integration Module
CVM	Convertible Top Module
CVT	Constantly Variable Trans.
D-Bus	Diagnosis Bus (same as TXD)
DBC	Dynamic Brake Control
DCS	Dealer Communication System
DDE	Digital Diesel Electronics
DIN	German Industrial Standards
DIS	Diagnosis and Information System
DISA	Differential Air Intake Control
DK	Throttle Housing
DKI	Throttle Position
DME	Digital Motor Electronics
DM-TL	Diagnosis Module Tank Leakage
DSC	Dynamic Stability Control
DSP	Digital Sound Processing
DTC	Diagnostic Trouble Code
DWA	Theft Deterrent System
DWS	Tire Pressure Warning System
EBV	Electronic Brake Proportioning
E-KAT	Electrically Heated Catalytic Converter
ECM	Engine control module (SAE)
EDC	Electronic Dampening Control
EDK	Electronic Throttle Valve
EGS	Electronic Transmission Control
EH	Electronic Hydraulic
EHC	Electronic Height Control
EKM	Electronic Body Module
EKP	Electronic Fuel Pump
ELV	Electronic Steering Lock
EM	Electro-Mechanical
EMF	Electro-Mechanical Emergency Brake
EML	Electronic Motor Load Regulation
EO	Component Location
EPC	Electronic Parts Catalog
ETM	Electronic Troubleshooting Manual
EWS	Electronic Driveaway Protection
FB	Function Description
FBZV	Radio Frequency Locking
FRU	Flat Rate Unit
GAL	Speed Dependent Volume
GM	General Module
GMR	Yaw Moment Control
GRII	Cruise Control
GPS	Global Positioning System
HDC	Hill Descent Control
HFM	Hot Film Air Mass Meter

DKI	Throttle Position
DME	Digital Motor Electronics
DM-TL	Diagnosis Module Tank Leakage
DSC	Dynamic Stability Control
DSP	Digital Sound Processing
DTC	Diagnostic Trouble Code
DWA	Theft Deterrent System
DWS	Tire Pressure Warning System
EBV	Electronic Brake Proportioning
E-KAT	Electrically Heated Catalytic Converter
ECM	Engine control module (SAE)
EDC	Electronic Dampening Control
EDK	Electronic Throttle Valve
EGS	Electronic Transmission Control
EH	Electronic Hydraulic
EHC	Electronic Height Control
EKM	Electronic Body Module
EKP	Electronic Fuel Pump
ELV	Electronic Steering Lock
EM	Electro-Mechanical
EMF	Electro-Mechanical Emergency Brake
EML	Electronic Motor Load Regulation
EO	Component Location
EPC	Electronic Parts Catalog
ETM	Electronic Troubleshooting Manual
EWS	Electronic Driveaway Protection
FB	Function Description
FBZV	Radio Frequency Locking
FRU	Flat Rate Unit
GAL	Speed Dependent Volume
GM	General Module
GMR	Yaw Moment Control
GRII	Cruise Control
GPS	Global Positioning System
HDC	Hill Descent Control
HFM	Hot Film Air Mass Meter
RDW	Tire Pressure Warning
RM	Relay Module
RPS	Rollover Protection System
RPW	Tire Puncture Warning
RXD	Wake-up Diagnosis Line
RZV	Direct Stationary Ignition
SB	Fuse Assignments
SBE	Seat Occupancy Detector
SCA	Soft Close Actuator
SG	Control Unit
SGS	Seat Integrated Belt System
SHD	Sunroof Module
SII	Service Interval Indicator
SM	Seat Module
SP	Schematic
ST	Connector Views
SZM	Central Switch Center Module
TD	Engine Speed
ti	Injector on time
TL	Part Throttle
TLEV	Transitional Low Emission Vehicle
TRS	Battery Isolation Switch
TSH	Door Lock Heating
TU	Technical Update
TXD	Transmitting Diagnosis Line
VANOS	Variable Camshaft Timing
VL	Full load - wide open throttle
WK	Converter Lock-up Clutch
ZAE	Central Airbag Electronics
ZGM	Central Gateway Module
ZKE	Central Body Electronics
ZV	Central Locking System
ZVM	Central Locking Module
ZWD	Idle Control Valve

Note:
A more complete list of the abbreviations used by BMW can be accessed from the ETK home page. Click the HELP icon (right) and expand the ABBRE-VIATIONS list.



BMW GROUP CLASSIFICATION

BMW uses a group numbering system to aid BMW staff as well as BMW Center personnel to identify vehicle components and the many available BMW information resources. The Main Group numbering system is made of two digits that can be found at the beginning of any BMW group number. The following information resources are all organized by this group numbering system and follow the same conventions:

- Technical Reference Information
- Service Information Bulletins
- Repair Information
- Technical Data
- Tightening Torques
- Part Numbers
- Special Tool Catalog
- Electrical Troubleshooting Manuals
- Diagnosis Program Test Modules
- Warranty Labor and Defect codes

Group	Description	Group	Description
0	Maintenance and General Hints	33	Rear Axle
1	Warranty	34	Brakes
2	Aftersales Development	35	Pedals
3	Technical Training	36	Wheels and Tire
4	Tools and Equipment	37	Suspension Systems
5	Information Systems	41	Body
6	Service Roundtables	51	Body Equipment
7	Workshop Environment Systems	52	Seats
8	GT 1	54	Special Roofs
9	Programming/Coding Explanations	61	General Electrical Systems
10	TIS	62	Instruments
11	Engine	63	Lights
12	Engine Electrical Systems	64	Heating & Air Conditioning
13	Fuel Systems	65	Audio, Navigation, Monitors, Alarms, SRS
16	Fuel Supply Systems	66	Distance Systems, Cruise & Remote Control
17	Cooling Systems	67	Electric Drives
18	Exhaust Systems	71	Tools and Accessories
21	Clutch	72	Safety Belts and Accessories
22	Engine and Gearbox Suspension	80	Bicycles/Bicycle Accessories
23	Manual Transmission	81	Books, Calendars, and Collectibles
24	Automatic Transmission	82	Lifestyle and Gift Items
25	Gear Shift Mechanism	84	Communication Systems
26	Drive Shaft	91	Individual Equipment
27	Intermediate and Special Transmission	97	Corrosion Protection
28	M Double-clutch Transmission w/Drivelogic	98	Paints
31	Front Axle	99	Paintwork
32	Steering and Wheel Alignment		

Within each **Main Group** (MG) exist various **Functional Groups**. As an example, the AIR document for replacing a right rear side panel on a 2019 G12 is 41 35 111. This is also the document number for the warranty operation code. The search can begin in AIR, KSD (Flat Rate Guide in AIR), or the parts catalog (ETK) in Group 41.

Occasionally, component parts or procedures may not be in the section that the user expects. **Group 72, Safety Belts and Accessories** contains many of the passive restraint components including the passenger airbag module, driver's knee pad airbag module, and the front seat side airbags. The crash-active head restraint can be found in **Main Group 52**, **Seats,** and the driver airbag module is located in **Group 32**, **Steering and Wheel Alignment**.

Tip: If a user is having difficulty locating a component or repair procedure, it may be helpful to identify the component or system that the target component is installed or attached. As an example, the driver airbag is mounted to the steering wheel. The steering wheel is found in Group 32 as is the driver airbag module.

The table below contains many of the commonly serviced components during collision repair and their associated Main Group numbers.

Component	Group Location
Bumper Fascia	51
Hood Panel	41
Front Side Panel	41
Doors	41
Rear Side Panel	41
Deck Lid, Hatch	41
Glass and Glass Trim	51
Emblems, Badges	51
Mouldings	51
Interior Trim	51
Bumper Supports	51
Suspension Crossmember (front)	31
Suspension Components (front)	31
Suspension Crossmember (rear)	33
Suspension Components (rear)	33
Airbag Module, Driver	32
Airbags, all other locations	72
Seat Belts	72
Radiator	17
Air Conditioning Condensor	64
Wheels	36
Fuel Tank, Fuel Supply	16
Battery, Body Electrical	61

DCSNET

DCSNet contains service information such as key data and vehicle service history, as well as parts information including parts pricing and parts availability. Here, users can also find information about specific vehicle recalls, Maintenance Plan activities, and Claims information. Customer data is considered **confidential information** and should only be used by Center associates.

The user can navigate to this site several ways:

- By selecting one of the menu tabs in CenterNet and opening another window
- Logging into the DCS site directly from DealerSpeed

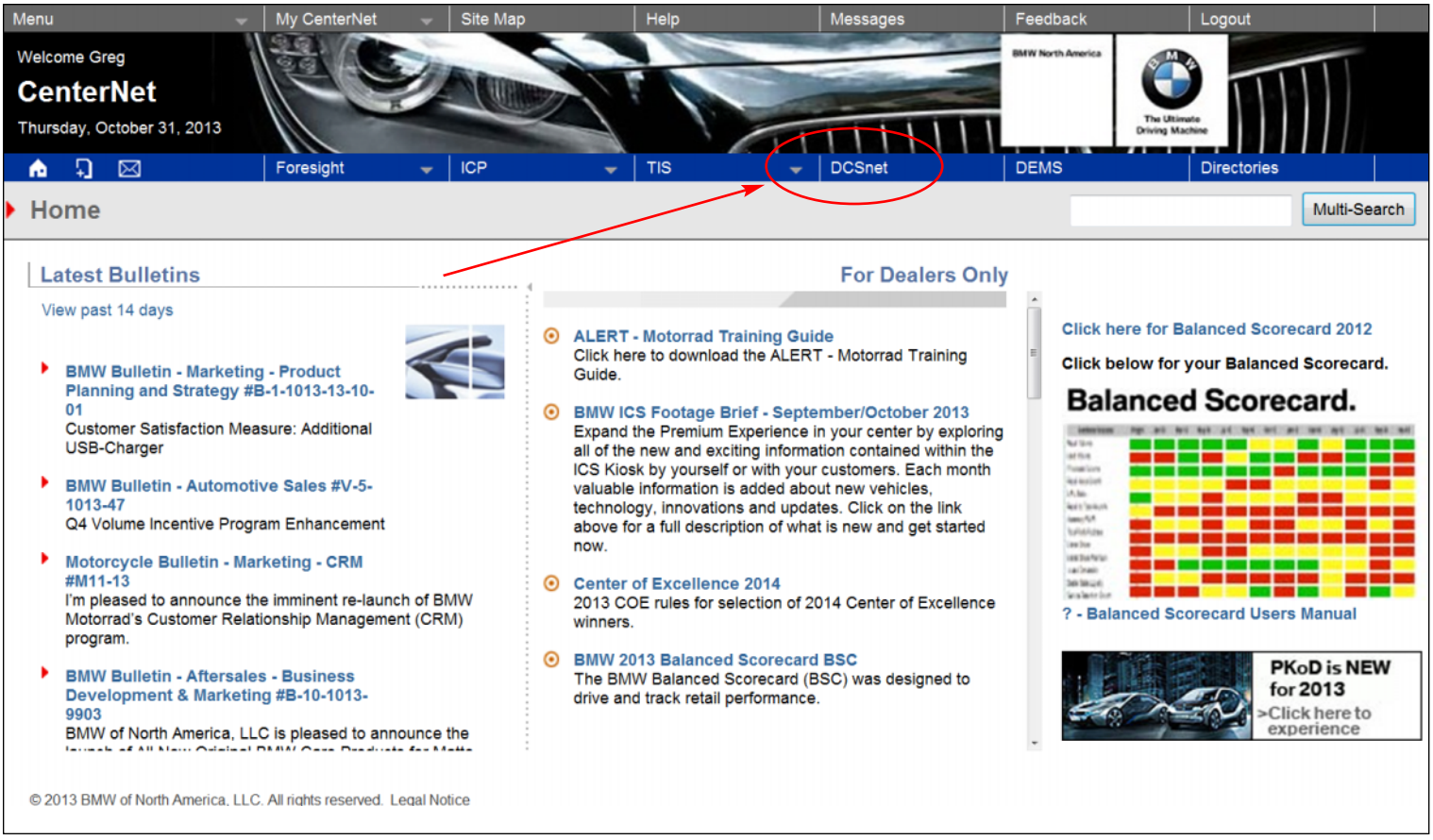
DCSnet - To Get There From CenterNet

1 Launch BMW CenterNet: go to **https://www.dealerspeed.net**

2 Enter a valid UserID (User name) and Password. Both fields are case sensitive.

3 Select CenterNet to launch this application.

4 Select DCSNet from the blue Menu Bar.



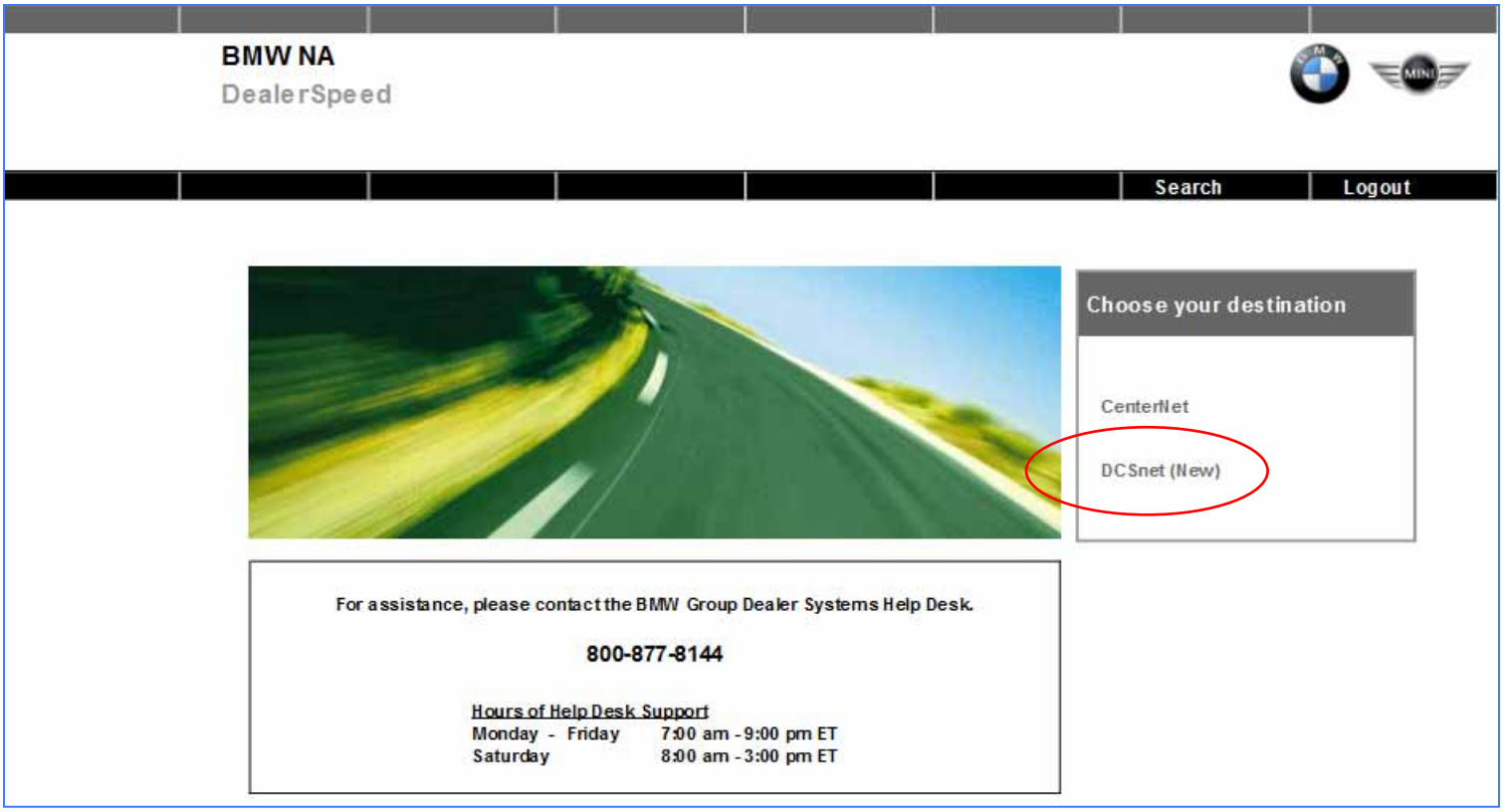
DCSnet - To Get There Directly from the DealerSpeed Login page

1 Launch BMW CenterNet: go to **https://www.dealerspeed.net**

2 Enter a valid UserID (User name) and Password. Both fields are case sensitive.

3 Select DCSNet.

Illustration 16: Selecting DCSnet from the Login screen



Vehicle History

During the initial consultation with the BMW client, it is beneficial to access the Vehicle History in the Service section of DCSnet. In this way, the advisor can identify:

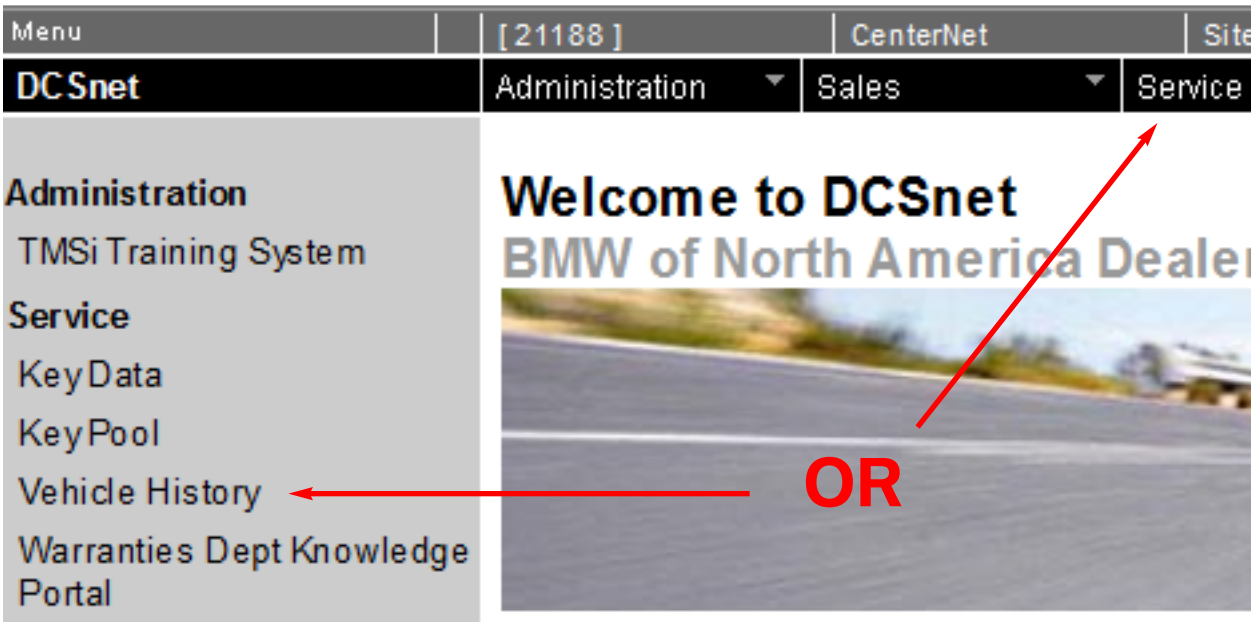
- Information about the owner of record and confirm that it matches the client's details
- Any open warranty, recall, or campaign items
- The Service History of a vehicle and any Maintenance Plan activity
- Any special notices or comments associated with the vehicle serial number
- A list of basic vehicle options
- Color codes, interior colors, and the vehicle's production date
- The amount of time that warranty coverage may be available
- The selling dealer as well as a list of all the different BMW Centers who may have performed service work on the vehicle

NOTE:

Some of the service and repair history can be viewed in AIR. Canadian and IRF CCRC staff who cannot access the Vehicle History section of DCSnet should have their sponsoring BMW dealership check this information and take appropriate actions.

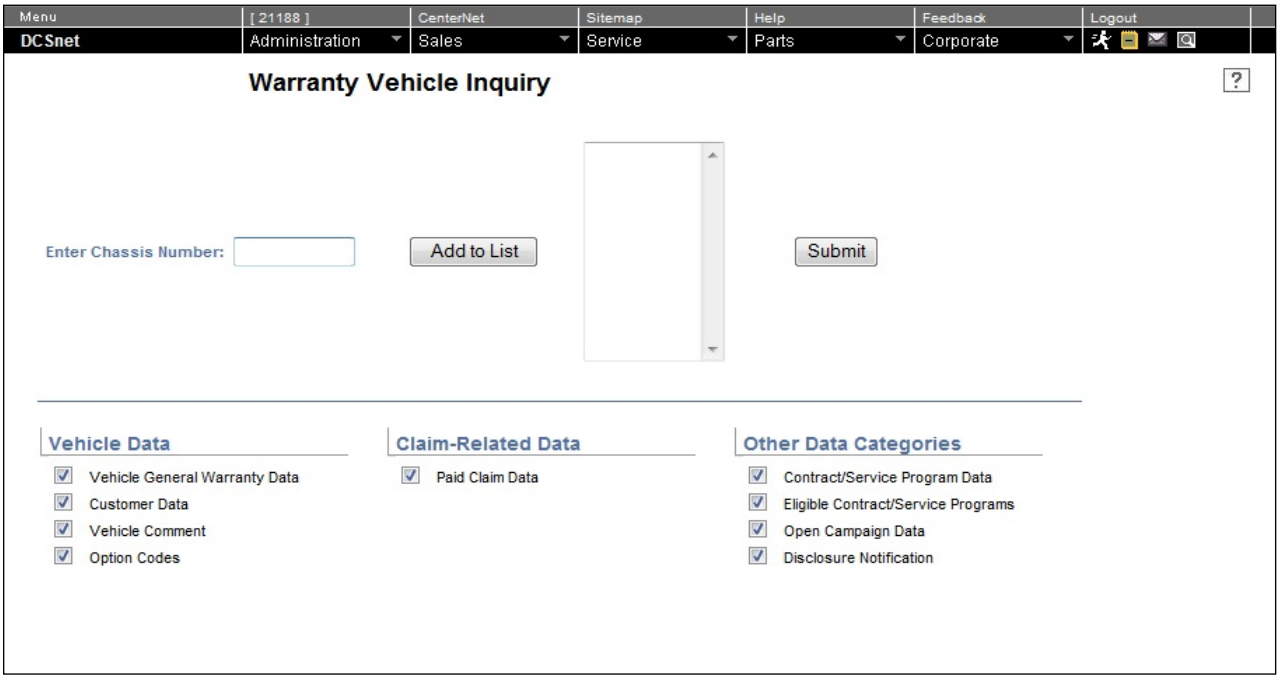
To access the Vehicle History screen, the user can either select “Service” from the tabs at the top of the screen, and then select “Inquiries” and then “Vehicle History” from the sub-menus, or click on the shortcut located along the left-hand page border.

Illustration 17: Launching the Vehicle History application



Once the user has selected the Vehicle History screen, they will need to input the serial number for the vehicle. Several serial numbers can be added to the Inquiry List at the same time. Several categories of data can be viewed, such as Vehicle Data or Claims Related Data. There are other option categories for sorting and displaying information. By default, all categories are selected.

Illustration 18: The Vehicle History Main Page

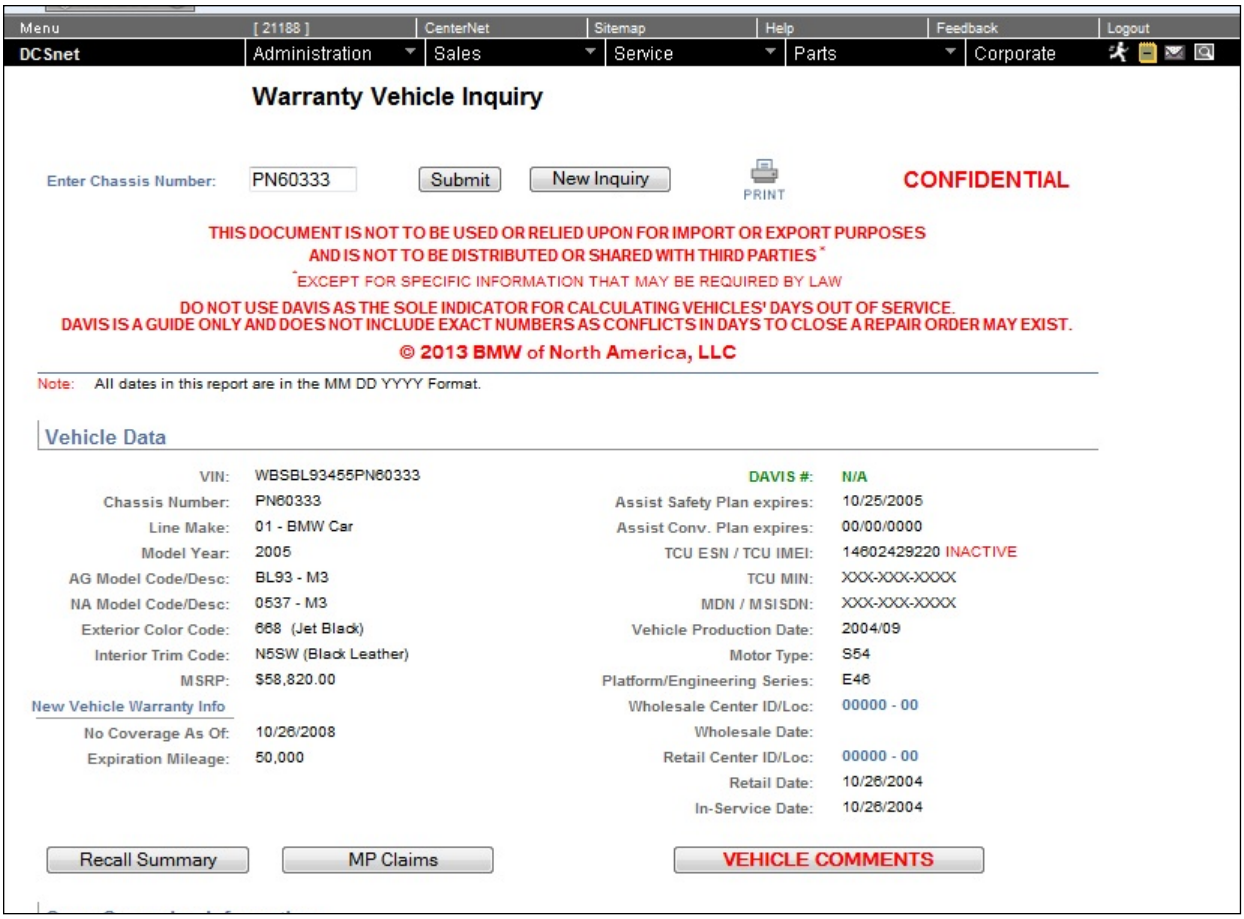


While accessing the Vehicle History report in the Warranty Vehicle Inquiry screen, BMW Center associates can also view:

- Vehicle data including the full VIN, Paint Code and Interior colors, Motor Type and Engineering Series, Production Date, and In-service Date
- Recall summary
- Maintenance Plan (MP) claims
- Vehicle comments
- Information about any open campaigns
- An abbreviated options list
- Information about the customer of record
- Codes for the wholesale and retail centers who were involved with the initial vehicle delivery or with the sale of the vehicle

The Vehicle Repair History shows the date the work was completed, the name and dealer code of the BMW Center that performed the repairs, any associated Claim and Repair Order Numbers, the date that repairs were made, and the vehicle odometer reading at the time of repairs.

Illustration 19: Sample Data: Vehicle History



Vehicle History in AIR

Some of the service history and vehicle information can be viewed in AIR once a vehicle's serial number has been entered. The goal at BMW is to provide most vehicle information using just one login and from one application. This helps streamline the data-gathering process and can speed up a service transaction.

Illustration 20: Technical campaigns

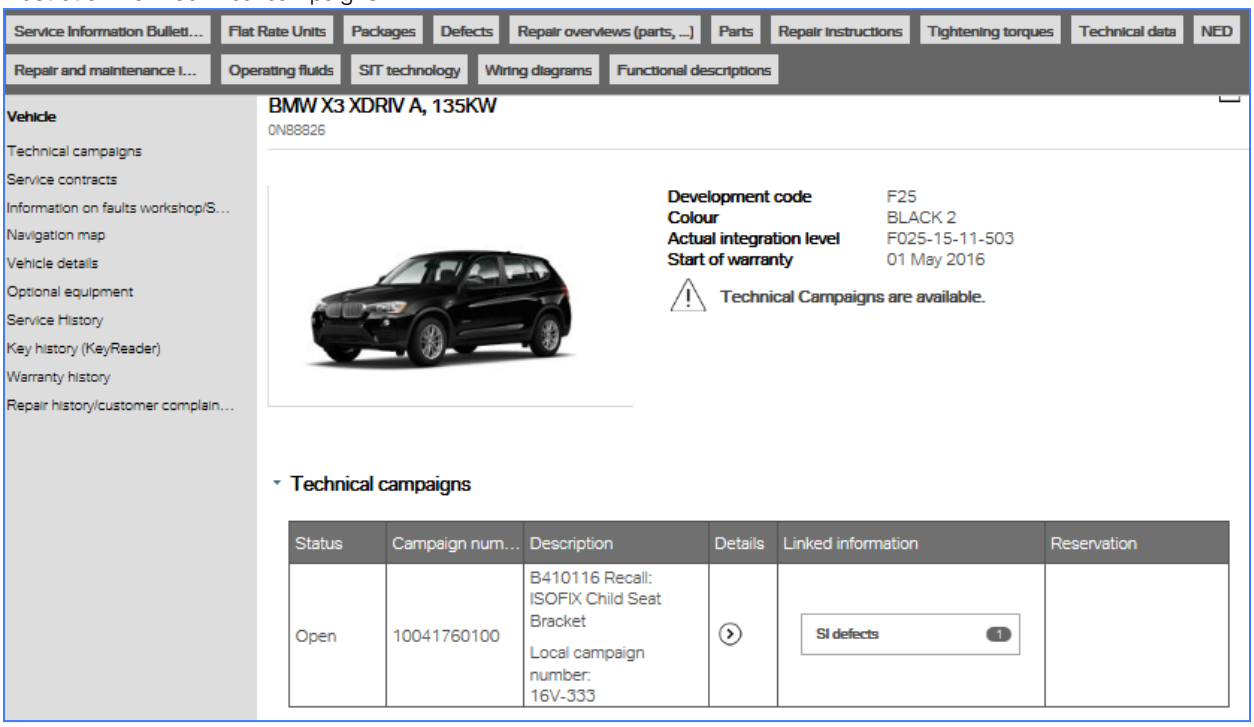
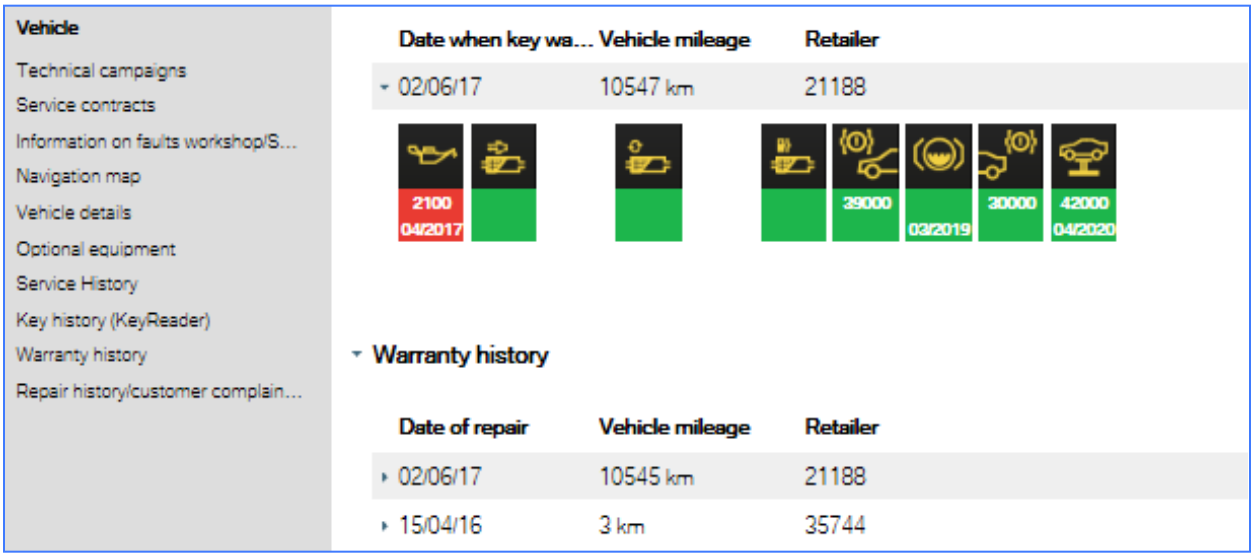


Illustration 21: Key Reader data and Warranty History



Summary

- Before starting a repair or creating a damage report, the BMW Center staff or their sponsoring BMW dealership should review the **Service History** by accessing **AIR** or **DCSnet** and obtain basic vehicle and customer information.

- Associates need to have proper login names and be granted certain user rights to access many of the BMW websites.

- Independent Repair Facilities in both the US and Canada may not have access to all BMW corporate sites as part of their DealerSpeed or S-GATE basic user rights. IRFs can ask their sponsoring dealer to grant them access to these restricted sites. Providing additional access rights is at the discretion of the sponsoring BMW Center and their management team.

- The Designation or Platform (Engineering) Code serves as the best means of identifying the various BMW models and for locating service information, technical bulletins, and ordering parts. The **Model Map**, **AIR**, and the **WebETK** applications are excellent tools for model identification.

- Users must assure that they have a high-speed web connection and that the correct computer technology and Internet web browsing software are available to access the various BMW websites.

- **Abbreviations and Acronyms** can be found in all BMW technical resources. BMW Center staff should become familiar with these shorthand notations for the systems encountered and understand their meaning. New acronyms and abbreviations are added frequently as vehicle technology evolves. The **Help screen** in **ETK** is a resource for most abbreviations found in AIR.

REPAIR DETAILS

In this module, we will discuss:

- Using the **Flat Rate Units** application in AIR to identify any pertinent stripping operations or procedures to find any gaps between the Estimating Procedure Pages (P-Pages) and the BMW service requirements
- The best way to utilize BMW resources to access **Service Bulletins**[1], **Training Manuals**[1], any **archived repair information**[1] for older models, and how to navigate parts applications such as the Parts Catalog found in AIR and ETK
- How to navigate and utilize the information in **AIR** to develop a thorough repair plan

Once the Advisor has identified the vehicle by its Engineering Series, reviewed the Repair History, looked at the preliminary List of Options, and created a basic damage report, then more specific information about the required repair procedures and any needed service parts can be obtained. For these steps, the Advisor will need to access:

- The Flat Rate guide (Flat Rate Units section) in AIR
- Repair Instructions found in AIR
- The Electronic Parts Catalog in AIR
- ETK

FLAT RATE UNITS

KSD is the Warranty Flat Rate application. In the past, the KSD application and its database was installed on a user's PC. The **BMW Warranty Flat Rate Guide** can now be accessed in AIR. The Flat Rate Guide is one more resource that Advisors and repair technicians can utilize to develop a repair plan.

The Flat Rate Guide provides a list or repair requirements that BMW considers essential when performing warranty repairs to the vehicle.

The Flat Rate Guide includes:

- Component removal and installation ("Stripping") operations
- Warranty labor times expressed in Flat Rate Units (FRUs)
- A list of the other required labor operations
- Labor Operation Codes
- Links to **Packages** and **Repair Instructions**

Labor Operation Codes can be used to quickly identify the primary repair document in AIR as well as finding other repair procedures and technical documents for operations associated with service to a component or system within the vehicle. The operation codes used in the Flat rate Guide make locating repair information in AIR a much faster and easier process.

Warranty Flat Rate Times are expressed as Flat Rate Units (FRUs). Virtually all AIR procedures will list the number of warranty FRUs on the main page in the repair section of AIR.

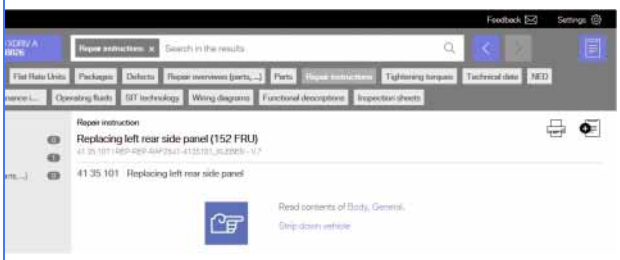
[1] Available to dealer-owned CCRCs in the United States

While Flat Rate Units (FRUs) are primarily specified for use with BMW warranty claims, Advisors and Body Shop Estimators may find this information helpful when assessing the damage and preparing a damage quotation for a new model in cases where the estimating database Information Providers have not yet published any repair times. Presently, **one (1) FRU is equal to six (6) minutes**.

When certain body operations are selected, two FRU values will be shown. As an example, the Flat Rate operation for replacing the left rear side panel on an F10, operation code **41 35 101**, lists two FRUs: **176** and **78**. The Upper FRU displayed is the body repair or replacement operation time. In this example, it is the time needed to replace the rear side panel. The Lower FRU marked with an **"R"** is the time allowance to remove and reinstall (R&I) any bolted-on items (associated operations). Operations with an "R" designation should not be added to the repair time to calculate the total warranty labor time.

Since the Warranty Flat Rate Guide includes repair requirements considered essential to the repair by BMW, it can serve as a supplement to the Procedural Pages (P-Pages) found in a commercially available Crash Estimating Guide. While there may be some overlap between the P-Pages and FRUs, there are Warranty Flat Rate labor operations that may not be found in commercial estimating databases. In time, a skilled Advisor will be able to identify several labor operations as well as any associated parts that need to be included in a Damage Report to help assure that the Repair Plan conforms with BMW repair requirements.

FRUs will sometimes include Component Replacement Requirements for other components installed on a body panel that may not be specifically called out in the Repair Documents found in AIR. As an example, the Cover Bowl (fuel filler pocket) on a right rear side panel is not found in the document that outlines rear side panel replacement. Unless there is a major difference in the right or left component being serviced only the procedure for a left-side component is outlined in AIR. The advisor would need to look up the AIR procedure for servicing the Cover Bowl. Stripping Operations as well as the labor operations found in the Flat Rate Guide procedure for the right rear side panel will usually call out the service procedures for parts like the cover bowl.



Accessing the Flat Rate Guide

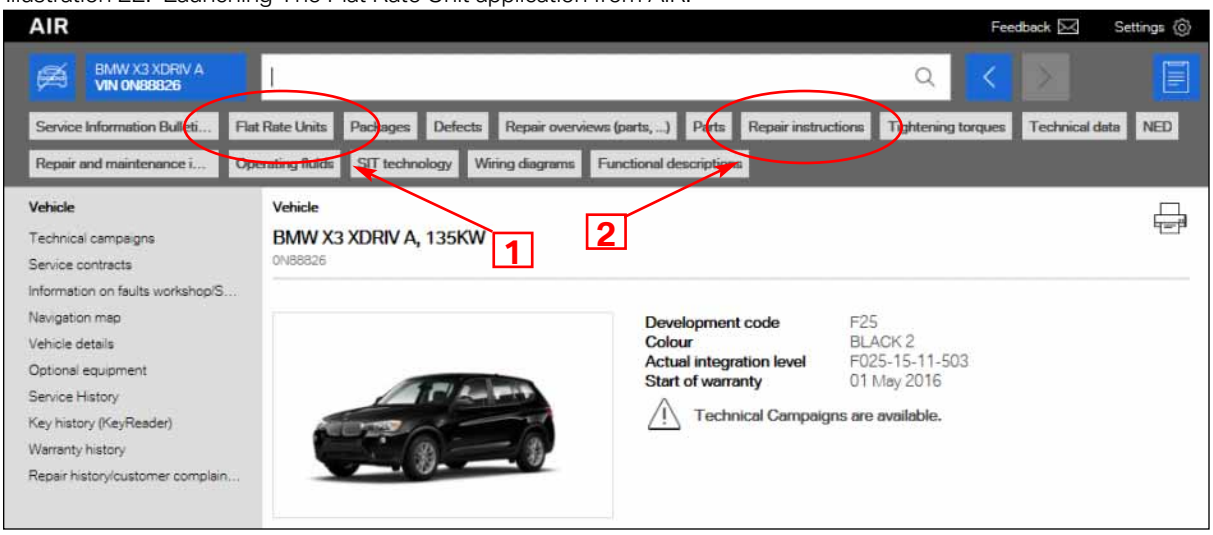
The Flat Rate Guide can be quickly accessed from AIR. Flat Rate procedures and operation codes can be either accessed directly from AIR or from the Repair Instructions for a particular item.

The Flat Rate Guide in AIR

1 Launch AIR

2 Click on the Flat Rate Units button found on the top section of the page (1, below)

Illustration 22: Launching The Flat Rate Unit application from AIR.



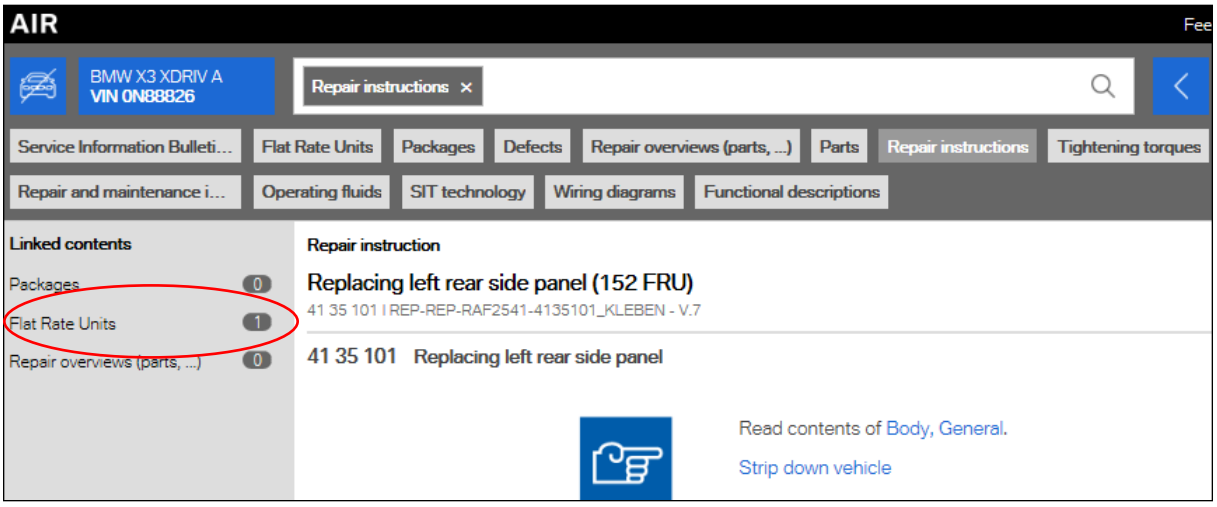
Accessing the Flat Rate Guide from Repair Instructions

1 Open up the **Repair Instructions** application (2, above)

2 Navigate to the Main Group and Subgroup for the specific procedure

3 In the left margin, click on the **Flat Rate Units** link

Illustration 28: Launching The Flat Rate Unit application from Repair Instructions



Flat Rate Guide - To Get There (Canada):

Canadian users should refer to the instructions found on page 22 to access AIR. Once AIR has been launched, the procedures are the same for both Canada and the US. While not available to independent repair facilities, Canadian repairers can check with their sponsoring center for more information on KSD if it is required.

Using the Flat Rate Guide

While it is rarely used by the collision center for generating and submitting warranty claims, the Flat Rate Guide should be consulted when preparing a repair plan or work quotation. The operations contained in the Flat Rate Guide are considered essential by BMW and as such, are part of a warranty repair procedure. These procedures as well as any required components should be added to the body/paint work order.

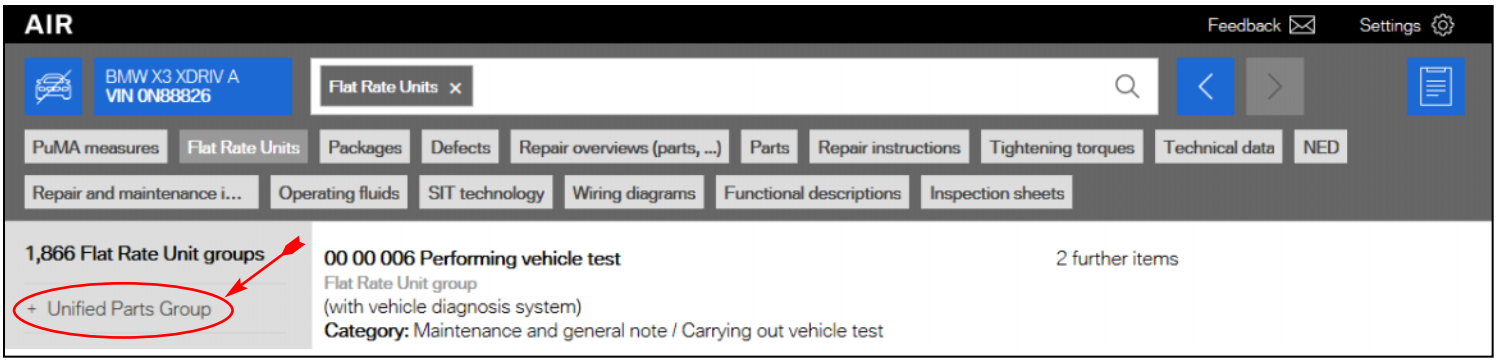
While FRUs do not correlate directly with the labor times in commercially available estimating databases, the advisor can use FRUs to help determine the required repair times for newly launched or specialty vehicles that may not be covered in the estimating database. Some of the procedures may be included; some may be considered "not included" operations in an estimating system; some may not be considered to be part of the repair for a component whatsoever.

From the Flat Rate Units application:

1 Start the Flat Rate Guide application by clicking the link at the top of the page labeled **Flat Rate Units**.

2 In the left-hand margin, expand the link for the **Unified Parts Group.**

Illustration 23: Navigating the Flat Rate Units application



3 Find the Main Group (MG) and Sub Group (SG) that contain the appropriate repair instructions. For a list of Main Groups, please refer to page 28.

4 Once the MG/SG have been selected, find and then click on the specific repair procedure in the center section of the page.

From The Repair Instructions

Flat Rate Units can now be accessed directly from the Repair Instructions in AIR, eliminating then need to open up another application while preparing a work order or damage assessment. To navigate to the Flat Rate guide from the Repair Instructions, simply click on the Flat Rate Units link to the left of the detailed repair instructions.

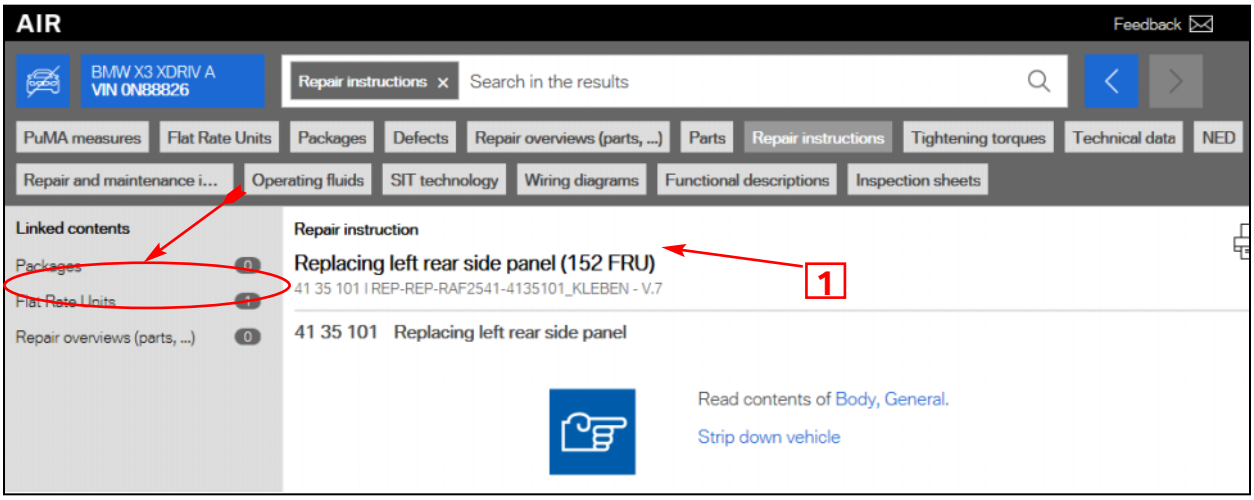
The gray oval to the right of the different selections in the left margin will indicate whether any documents are present. Illustration 24 (below) shows the following additional documents are present:

Packages - 0

Flat Rate Units - 1

Repair Overviews - 0

Illustration 24: Accessing Flat Rate information from Repair Instructions



Flat Rate Units

Flat Rate Units (FRUs) are displayed from the Flat Rate Guide for both major operations and stripping procedures. Stripping procedures are identified with an "R" before the numerical value. The illustration (below right) is for Operation 41 35 101 shown above in Illustration 30. As part of the main work required, this panel requires 55 FRUs to strip and prepare (Removal and Reinstallation - R&I procedures) the panel.

Note that in many cases, the BMW Warranty Labor Rate may differ from the center's acceptable retail rate, or "base labor rate". To convert FRUs into a format that would provide the center with proper labor compensation, calculate the FRUs using the shop's warranty rate and divide the result by the center's base labor rate. In the example above, if 41 35 101 showed 152 FRUs and the center's warranty body labor rate was $80/hour, this warranty repair would be compensated at $1,013.33. If this center had a base retail labor rate of $50, divide the warranty payment by this base retail rate. The result would be a representation of how this labor operation would be compensated at the lower retail labor rate.

Most repair procedures shown are for components fitted to the left side of the vehicle. In most cases, the process for replacing the panel on the right side is virtually the same. While some panels may have additional features, the process described to complete the main task is the same. There may, however be additional FRU notes or text included for servicing a right-side component.

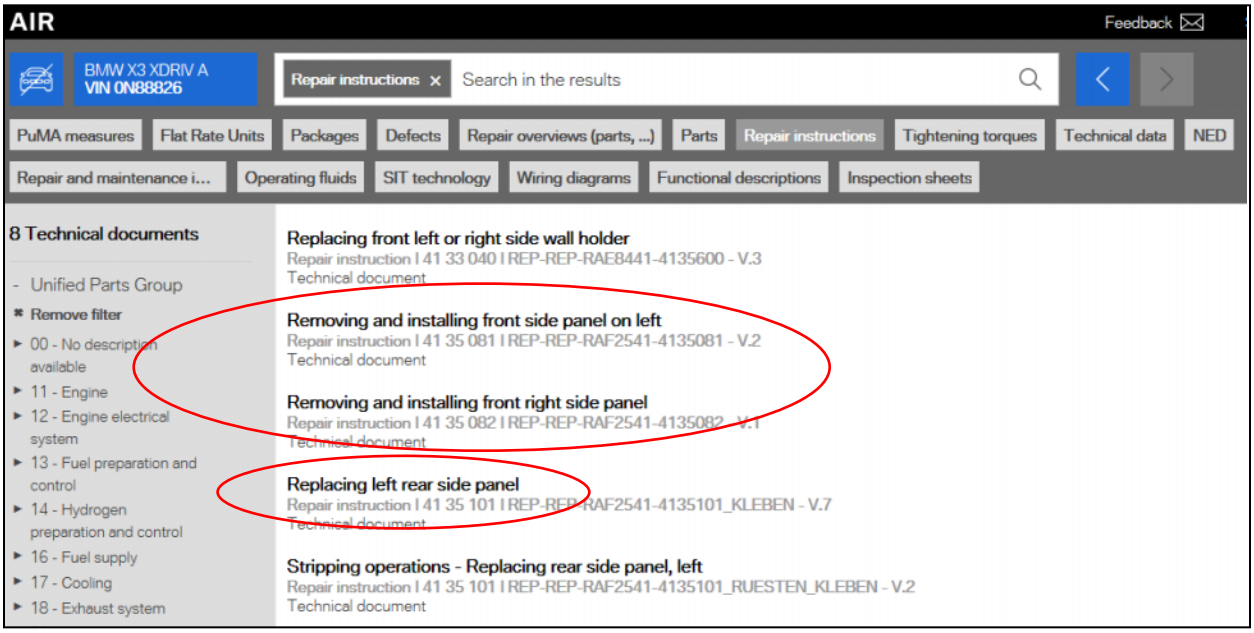
Since there may be additional work for servicing a component on the right side of the vehicle, the user may need to directly search for these components in the Flat Rate Unit application rather than launching the FRU guide from the Repair Instructions.

The last three characters in a document number or operation code identify whether the procedure is for a left-side or a right-side component.

In some cases, both procedures are shown in the Repair Instructions section. in others, the user would need to open the Flat Rate Units application for the particular right-side panel. Illustration 31 (below) shows the Repair Instructions for Removing and Installing the Front Right Side Panel (document # 41 35 082). While the instructions direct the user to the "front side panel left", there is a Flat Rate Unit for the front right side panel in the left-hand margin that can be accessed directly.

Looking at the MG/SG for 41 35 (Illustration 25, below), we can see that there is a repair procedure listed for the removal and installation of both the right and left front side panels, yet AIR shows the replacement instructions for the left rear side panel only. When servicing the left rear side panel on this vehicle, the advisor should first open the Flat Rate Units application and do a search for the right rear side panel.

Illustration 25: Selecting a repair procedure



Using the Flat Rate Guide

Once the repair topic has been identified and the Flat Rate Units application launched, several additional subgroups may be available. Select the procedure and description that best matches the needed labor operation. Once an operation has been found, click on the description to view the procedure.

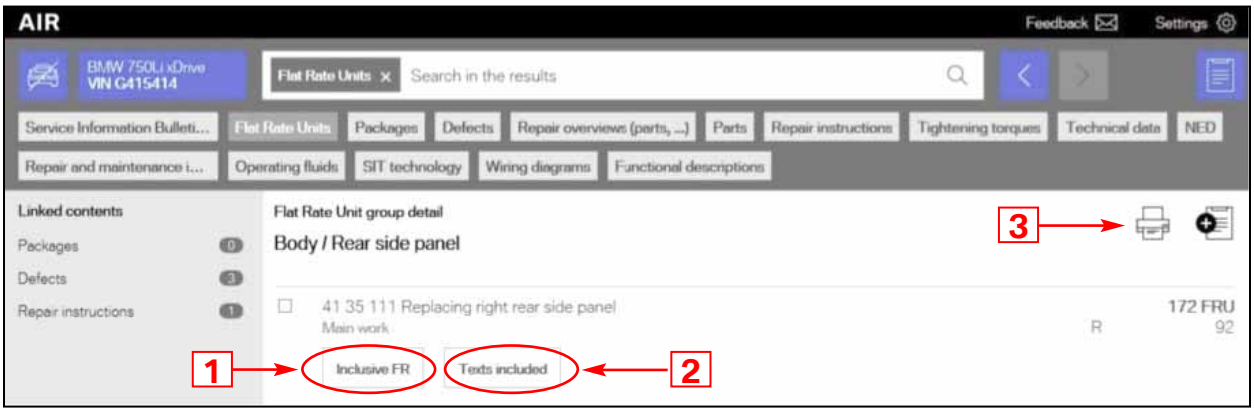
When a labor operation is selected, users will see two buttons (Illustration 26, next page):

- Inclusive FR (item #1)
- Texts Included (item #2)

The **Inclusive FR** describes those additional operations that are covered by the operation code. This lists operations that must be performed as part of the main procedure. The FRUs listed for the primary labor operation as well as those identified with an "R" prefix.

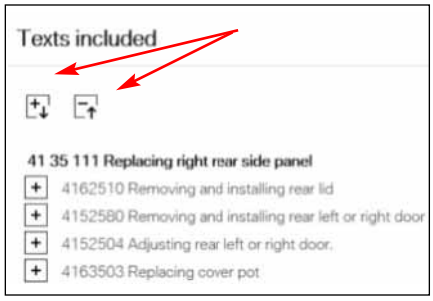
The **Texts Included** section provides a list of those operations that are not called out specifically in the Flat Rate Manual and do not have their own operation codes but are considered to be part of the repair process such as partially setting back the wiring harness as well as filling and sanding. This text appears just below a labor operation and its operation code.

Illustration 26: Front Right Side Panel Repair Instructions



When either the Inclusive FR or the Texts Included sections are launched, they will show the individual operations and their unique operation codes. Any operation code preceded by a plus sign (+) means that there are more details included for that operation. The advisor can click on each plus sign individually, or select the up or down arrow icons above the main operation code and labor description to expand or contract all of the operation codes (see illustration, right).

The application also has a print function. (Illustration 26 above, item #3). If the advisor chooses to print the entire list as a reference to search the individual repair documents and procedures, the complete list of operation codes is automatically expanded when it is sent to a printer or a printing application.

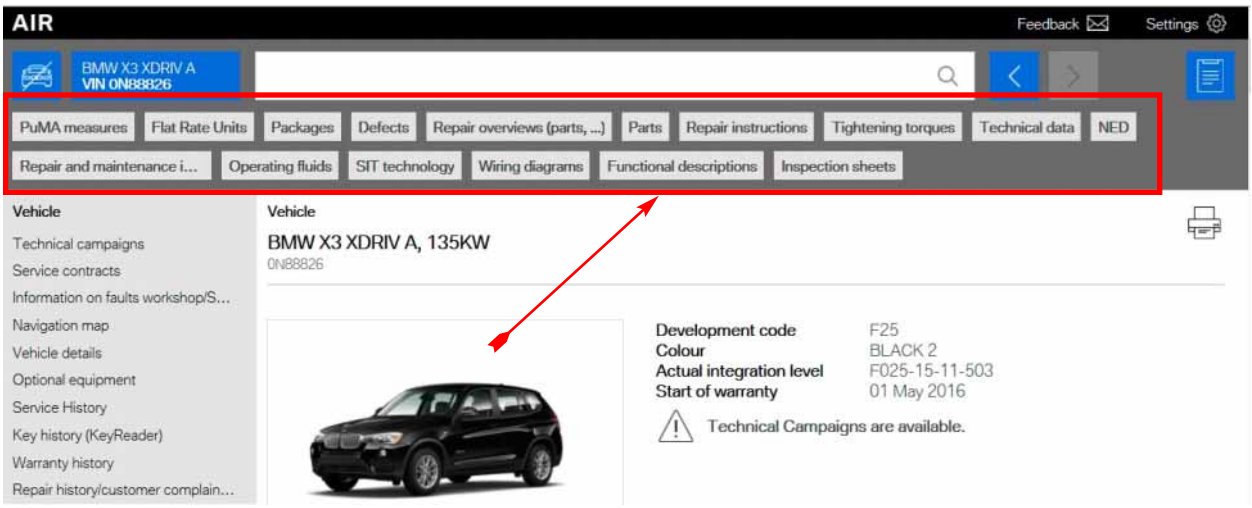


Warranty Labor Operation Codes can also used in AIR to identify corresponding **Repair Document Numbers**. This can be helpful when locating the required repair procedure.

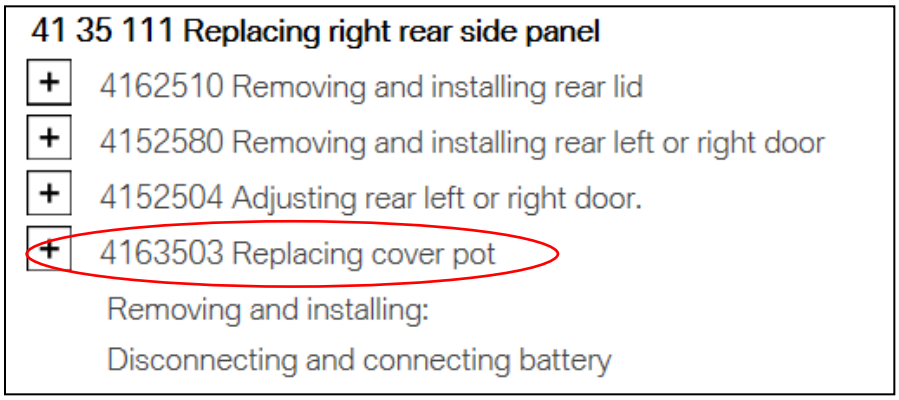
Using Operation Codes

The **Labor Operation Codes** found in the **Flat Rate Guide** can also be used to identify repair procedures in AIR. When an Operation Code is identified, the Advisor only needs to enter the code into the search bar after the main category is selected using AIR. Categories are found at the top of all AIR pages.

Illustration 27: The AIR category selection

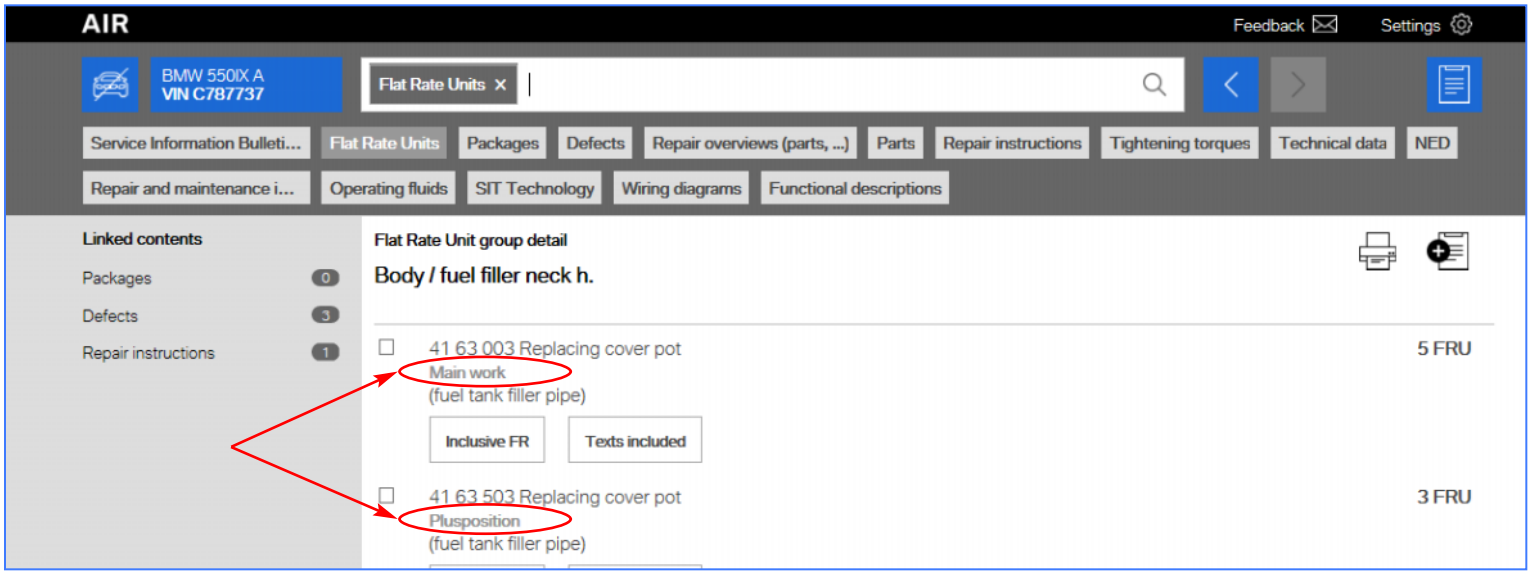


In the following example, the Advisor is searching for the repair instructions for replacing the Cover Pot after identifying the Flat Rate Units for a G01 right rear side panel replacement (41 35 111). The **Plusposition** Operation Code for the Cover Pot is 41 63 503. Operations are divided into Main Work and procedures identified in the Flat Rate Guide as "Plusposition". Plusposition operations are those procedures that are part of another main operation nad preceeded by a plus sign (+). In this example, the main operation is the replacement of the right rear side panel and the Cover Pot replacement is part of this main operation and shown as a Plusposition operation.



To identify the labor operation code for the Cover Pot, enter the Plusposition operation code into the Search Bar (Illustration 28, below). Both the Main Work and Plusposition operation codes should display.

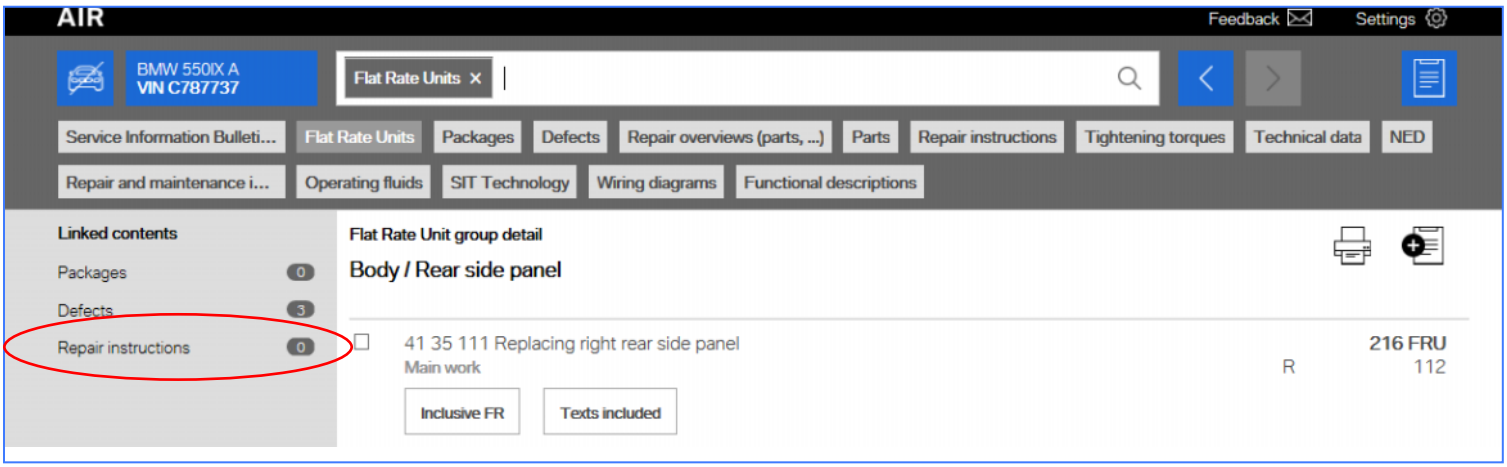
Illustration 28: The Flat Rate section for a right side component



After entering the Operation Code for the Cover Pot in the Flat Rates Unit category (Illustration 28, above), the search results indictate that there is one Repair Instruction available for this operation code. Clicking on the Repair Instructions link brings us to the procedure for servicing this component. Just as users can access Flat Rates from the Repair Instructions section simply by clicking on the link in the left-hand column.

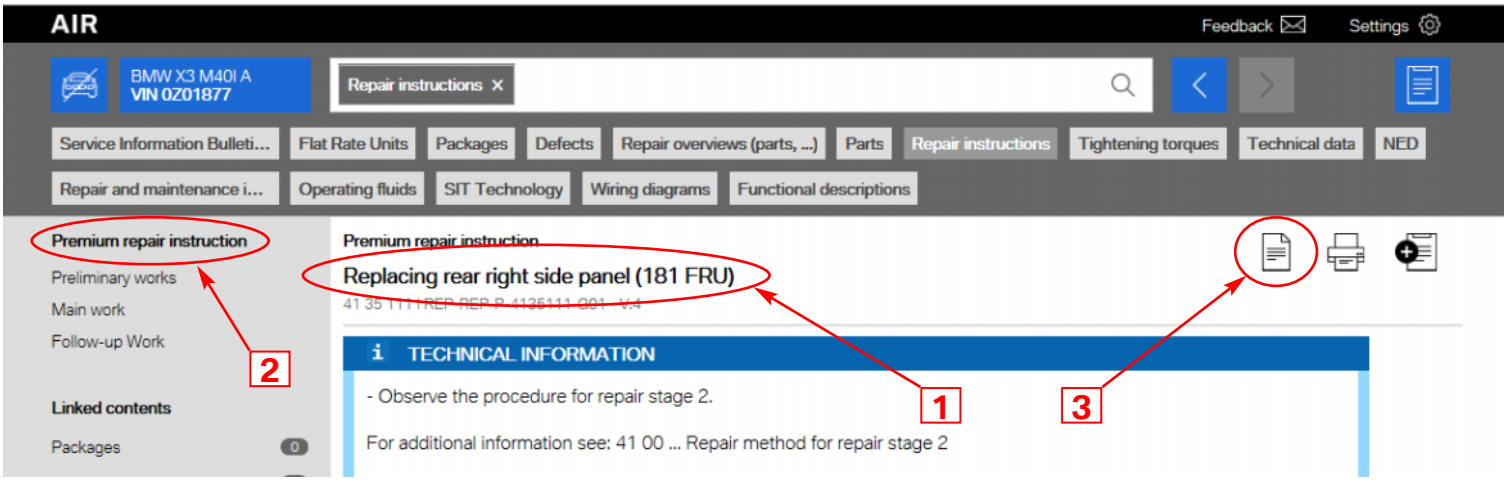
In cases where there is no repair document for a right-side component, users would follow the instructions for the left-side component. This is commonplace when replacing side panels, although on certain G-variant vehicles, there are repair instructions for components found on the vehicle's right side.

Note, however, that for certain vehicle right-side components, there may not be a link to Repair Instructions from the Flat Rate Units section of AIR.



Some G-variant vehicles may show repair instructions for right-side components (Illustration 29, #1 below). The vehicle pictured is a G01.

Illustration 29: Repair Instructions for a Right Rear Side Panel (G01)



PREMIUM REPAIR INSTRUCTIONS

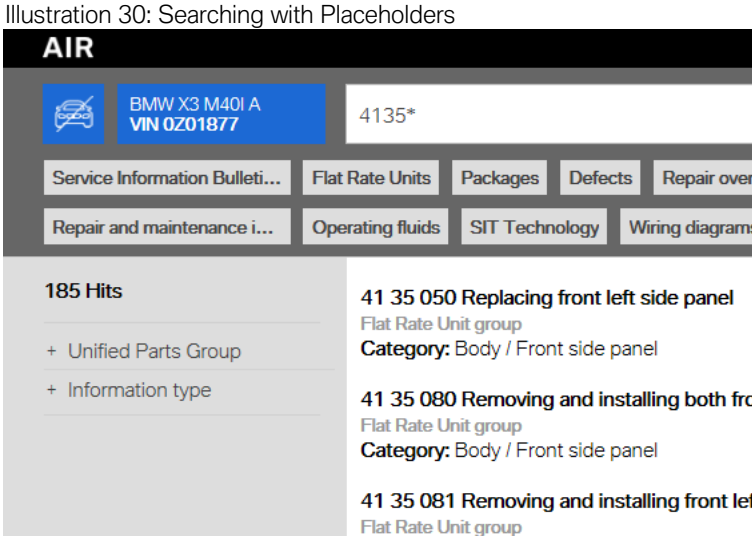
Starting with the G12, AIR also includes a summary of the individual steps when the repair instructions first display. The Premium Repair Instructions provide links to all of the related documents for the specified procedure. To expand the list and display AIR using the Overall View, the more familiar AIR display style, click in the icon in the upper right-hand side of the page (Illustration 29, #3 above).

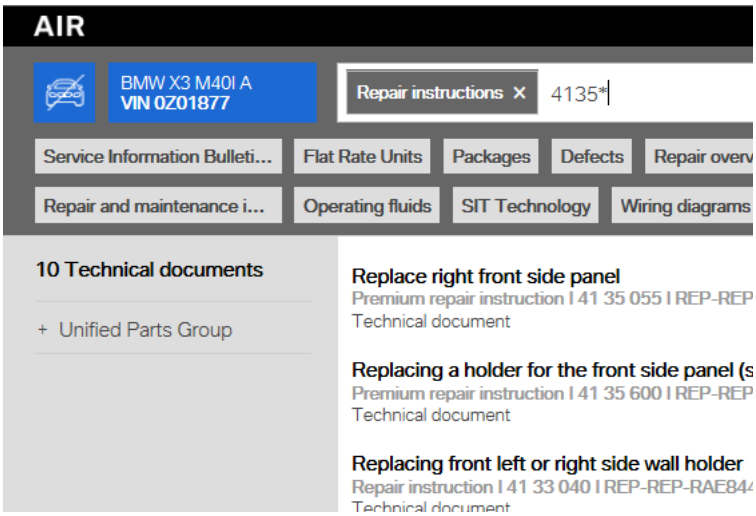
Using Search Function Placeholders

AIR allows searches to be performed using any keyword. The search returns all matching as well as related results of a search term. Users can also search for information using placeholders. In this case, the unknown portion of a search term is replaced by an asterisk (*). For example, entering “engine*” would find not only “engine” but also “engine control”. So, if the user knows part of the FR Code, Operation Code, or document title, an asterisk of star can be entered for the unknown characters.

Searches can be filtered by first selecting the category and then entering the search term. This option will also work when using placeholders. For example, performing a general search using **4135*** returns **185** hits. Performing the same search from the **Repair Instructions** category yields only **ten results**.

Illustration 30: Searching with Placeholders





AIR - ACCESSING BMW REPAIR INFORMATION

The BMW Aftersales Information Research (AIR) web application provides users with a broad range of technical information when the need arises to service or repair BMW vehicles. The AIR application program:

- Provides component service details as well as BMW repair policies
- Includes component replacement details
- Shows the related FRUs
- Includes details about standard equipment and options installed at the plant during final assembly including option codes
- Lists requirements for service to other related system
- Contains information on any stripping requirements associated with a procedure
- Provides access to the **Flat Rate Guide**
- May display **Packages** for both Service Repairs (SRP) as well as Warranty Repairs (WRP)

Currently, AIR is available as either a server-based (ISPI NEXT) or a web-based application. While speeds may be slightly slower when accessing information via the Web, this eliminates many of the remote connection requirements for collision repair facilities that may be located in another building or off-premises and not sharing the same property as the BMW Center. We will focus on the various applications found in the web-based version.

The AIR application provides users with an information search system for the aftersales sector, which allows technical and commercial service data to be displayed in just one system. Searching for information is significantly quicker and easier thanks to the application, allowing users to devote more time to customer care and completing tasks in the workshop.

When launching the application from DCSnet, the system runs a check automatically to determine the application's availability and status. Users should only click on the **Start** button after the button's color shows green.

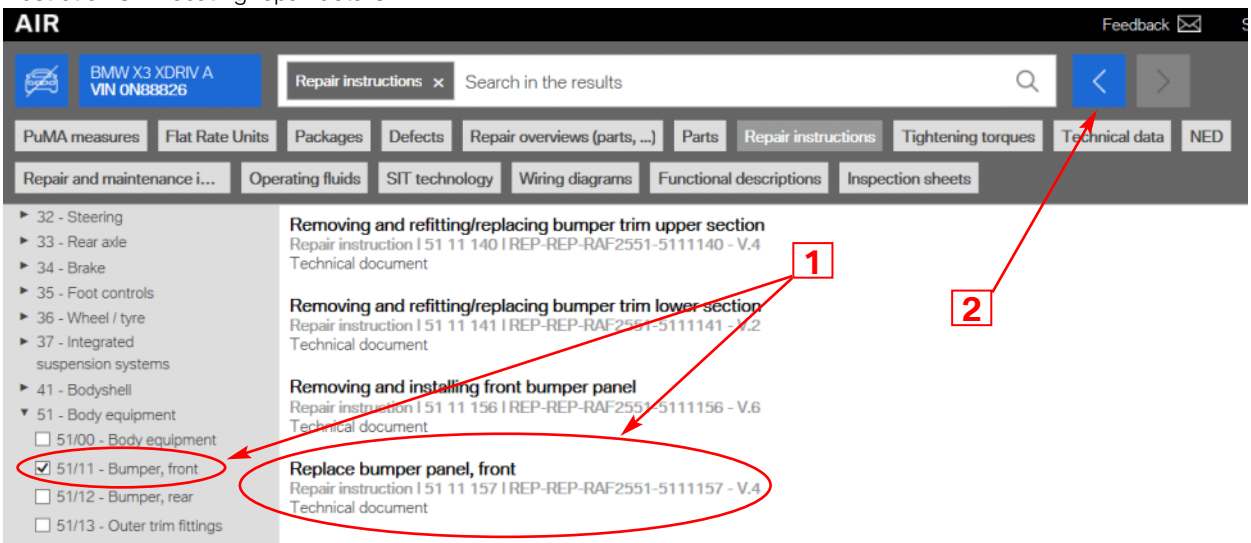
Navigating AIR

The user can select any of the different categories (Measures) that are displayed at the top of the page to initially filter the search results. After the category is selected, the filtered results will show in the left-hand margin. To further refine a search, the user can enter another search term into the search bar.

For most categories, the list displayed in the left margin will contain the Main Group (MG) numbers. The MG can be found by first selecting the Unified Parts Group. This will expand the section. From here, select the MG using the description.

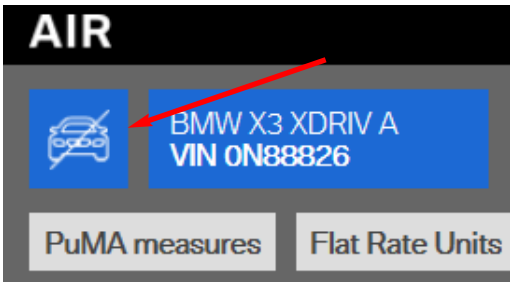
As an example, if the user wants to search for repair instructions for a front bumper, navigate to the **Repair Instructions** section, expand **MG 51**, and then select **51/11 Bumper Front** (Illustration 31, #1). The document number for this procedure is **51 11 157**

Illustration 31: Locating repair details



To step back a page, do not use the browser's Back button. Use the **Back Button** in AIR found just to the right of the Search Bar (Illustration 31, #2).

If the component is attached with threaded fasteners, a link to the **Tightening Torque** specifications **(AZD)** will be included. In certain cases, a list of consumable items or a link to the **Electronic Parts Catalog** with specifications, quantities, and part numbers for these items is also included. For more information on utilizing AIR documents and developing a better understanding of technical repair requirements, please consult BMW Course **SB017, *BMW Collision Advisor Training*,** or many of the product-specific Technical Training programs available through BMW.



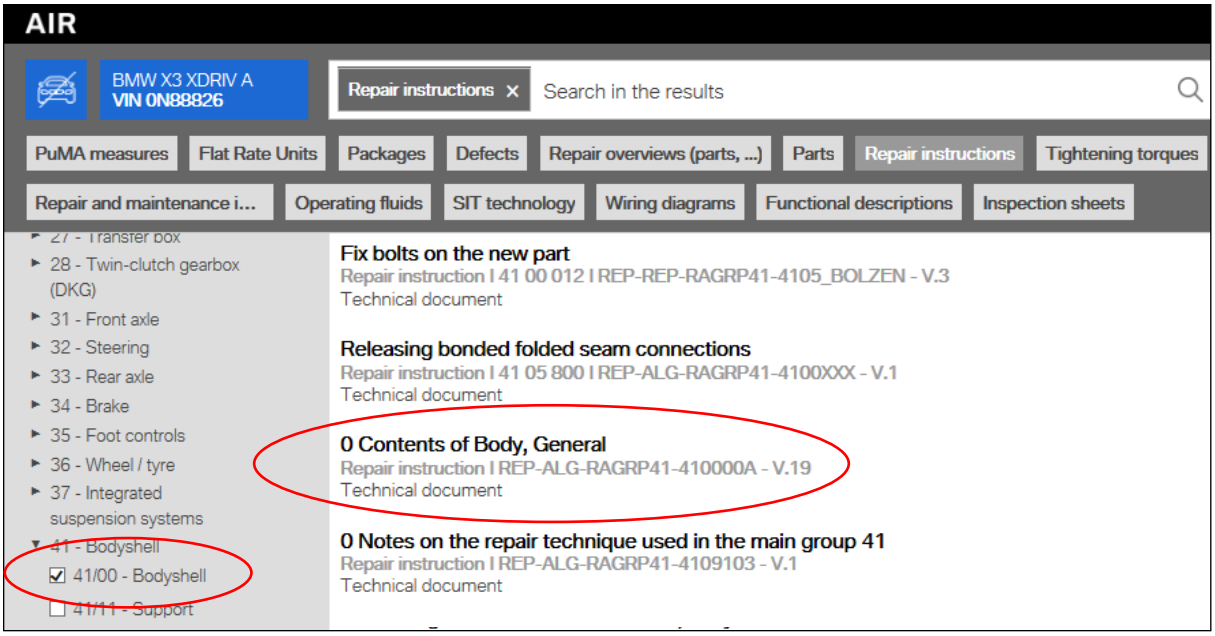
When the user completes research for the selected vehicle, a new vehicle can be entered from any page within AIR. Click on the **Blue Button** in the upper left-hand corner to delete the serial number (illustration to the left). A new serial number can then be entered on the AIR start page.

Group 41-00... Body General

Users should be familiar with the guidelines and BMW policies that apply to all vehicles undergoing body and paint service. **Main Group 41**, **Section 00** contains many topics that should be understood and followed when preparing a damage report as well as conducting repairs in the workshop. In this section, users will find information covering:

- General Notes on Quality Standards and Workshop Equipment
- Safety Regulations covering Worker Safety, Information on Hazards, and Vehicle Protection
- Materials used in the construction of BMW vehicles as well as expendable materials (consumables)
- Handling Components after an Accident including Electrical Systems and Hybrid Vehicles; Passive Safety Systems such as Airbags and Seatbelt Tensioners; and Chassis, Suspension and Steering notes
- Body Dimensions, both Frame Dimensions (vehicle structure) and Gap dimensions for outer body panels.
- Cavity Sealing and guidelines for installing and positioning Shaped Parts (acoustic baffles)
- Vehicle Identification Number covering both general information on the VIN and components with VIN stampings
- Repair Techniques for damage that varies in severity
- General information about Corrosion Protection for both steel and aluminum components
- Paint guidelines providing General Information; Information and Warning Labels and replacement guidelines; and details about refinishing miscellaneous components such as the outside mirror, door handles, fuel filler doors and refinishing various 2- and 3-coat areas of the vehicle.

Illustration 32: Main Group 41 00



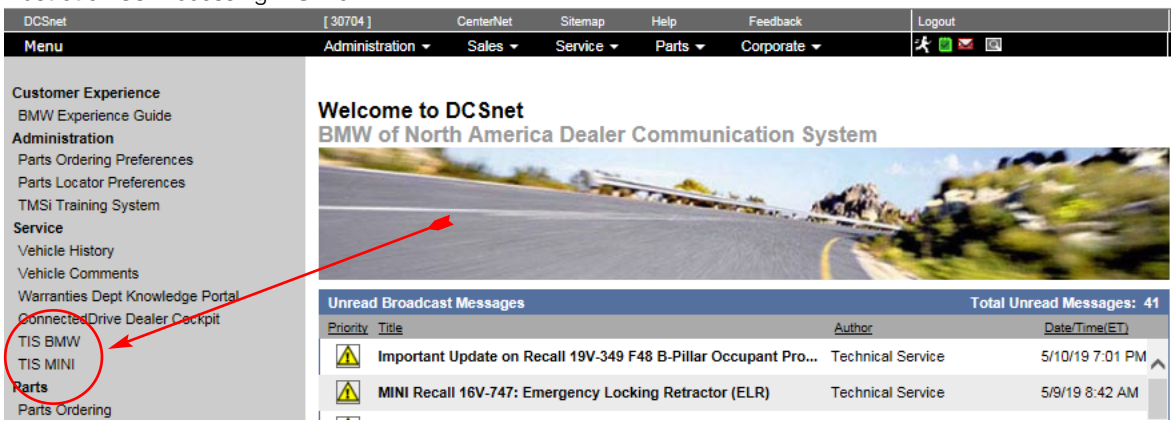
ADDITIONAL RESOURCES

There are additional resources that can be found within TIS 2.0 that the collision repair professional will find helpful.

Accessing TIS 2.0

In previous versions of DealerSpeed, **TIS** could be launched from CenterNet. The latest release, **TIS Version 2**, is now accessed from DCSnet. Users must navigate to DCSnet and find the **TIS BMW** or **TIS MINI** link in the left-hand margin.

Illustration 33: Accessing TIS 2.0



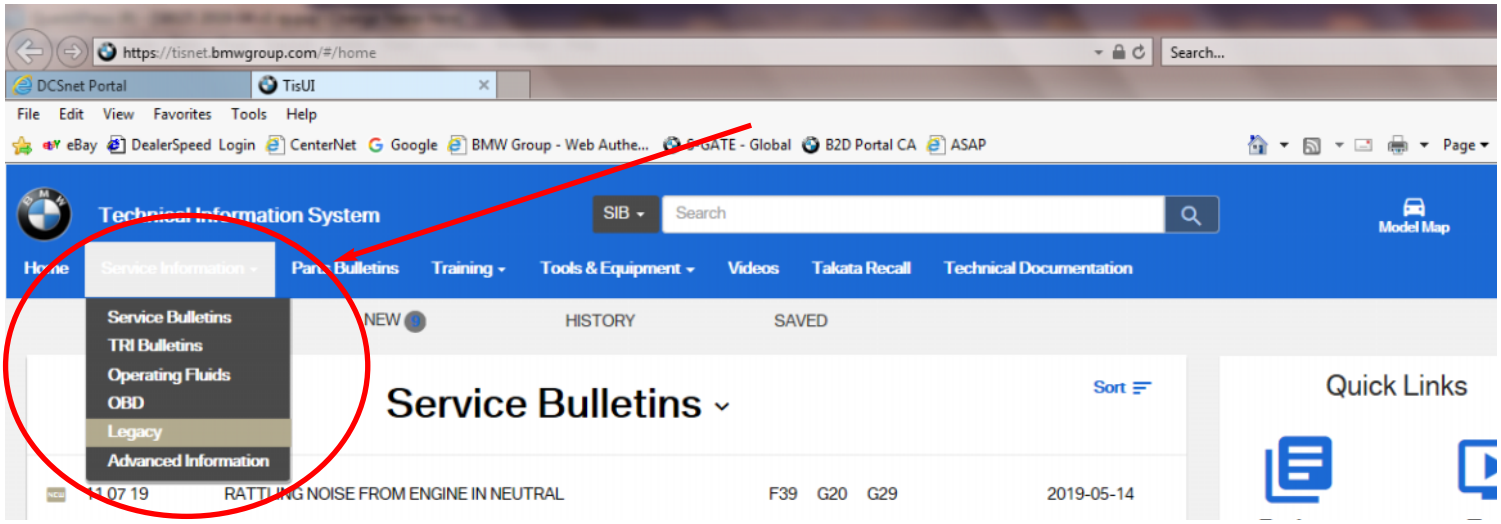
Before using **ETK**, **TIS BMW**, or **TIS MINI**, center associates must be granted access rights by their RSDM (Canada) or DEMS (US) administrators. Access to these sites is not part of basic access.

Legacy Repair Information

While it is not very common, collision repair facilities will occasionally need to make body repairs to older model BMW vehicles. Although repair data for models before the E36 (1992) is not contained in AIR, Repair Manual information for older models may still be available and can be accessed online.

This information is located on the TIS 2.0 homepage. Select the **Service Information** tab found on the Menu bar. Users can access either the **Wiring Diagrams to E36** and the **Repair Manuals prior to E36**. Please note that this is not a searchable database of repair information, but consists of scanned images from printed Repair Manuals for the models specified.

Illustration 34: Legacy Repair Information



Service Reference Materials

Service Reference Materials such as **Service Training Manuals, Body & Paint Training Manuals,** and **Service Information Bulletins (SIBs)** can also be found in **TIS 2.0**.

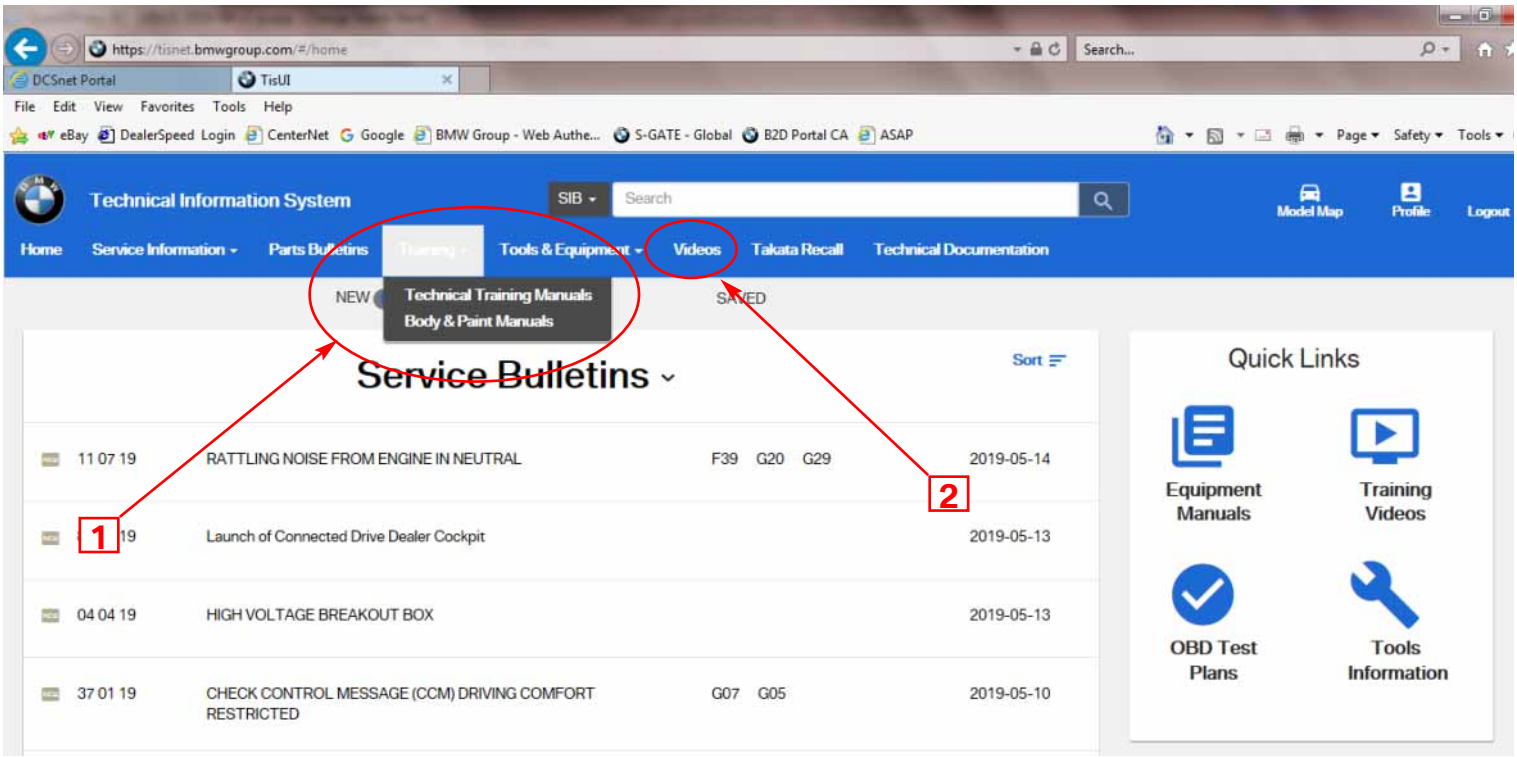
Service Training Manuals

In addition to Training Manuals that cover a wide range of Complete Vehicles, certain manuals provide information on systems such as the **Panorama Glass Sunroof** (ST1319), **BMW Active Hybrid Technology** (ST920), **Passive Safety Systems** (ST403), and **Crash Sensitive Head Restraints** (ST712). Many of these manuals are now located in **TIS 2**, a new online application that now houses all training reference materia, both Body& Paint and Technical Training Manuals.

Complete Vehicle workbooks can provide details about new vehicle systems as well as **Materials Usage** on new models. The Materials Usage diagrams makes it much simpler to identify vehicle construction materials.

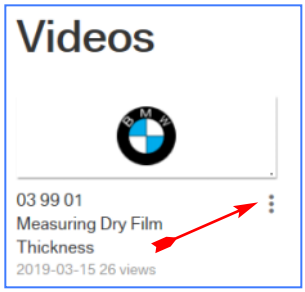
These Training Manuals can now be found under the **TIS 2.0 Training** tab (Illustration 35, #1).

Illustration 35: Locating Training Manuals in TIS 2.0



Tech Hotspot Videos

BMW NA has been producing short informational videos covering a broad range ot technical topics. These videos, known as **Tech Hotspot Videos,** are short in length and provide tips for service procedures that may not be very well understood by technicians or advisors. There are several videos that apply to collision advisors such as using a dry film thickness gauge and saving driver profiles to a USB stick.



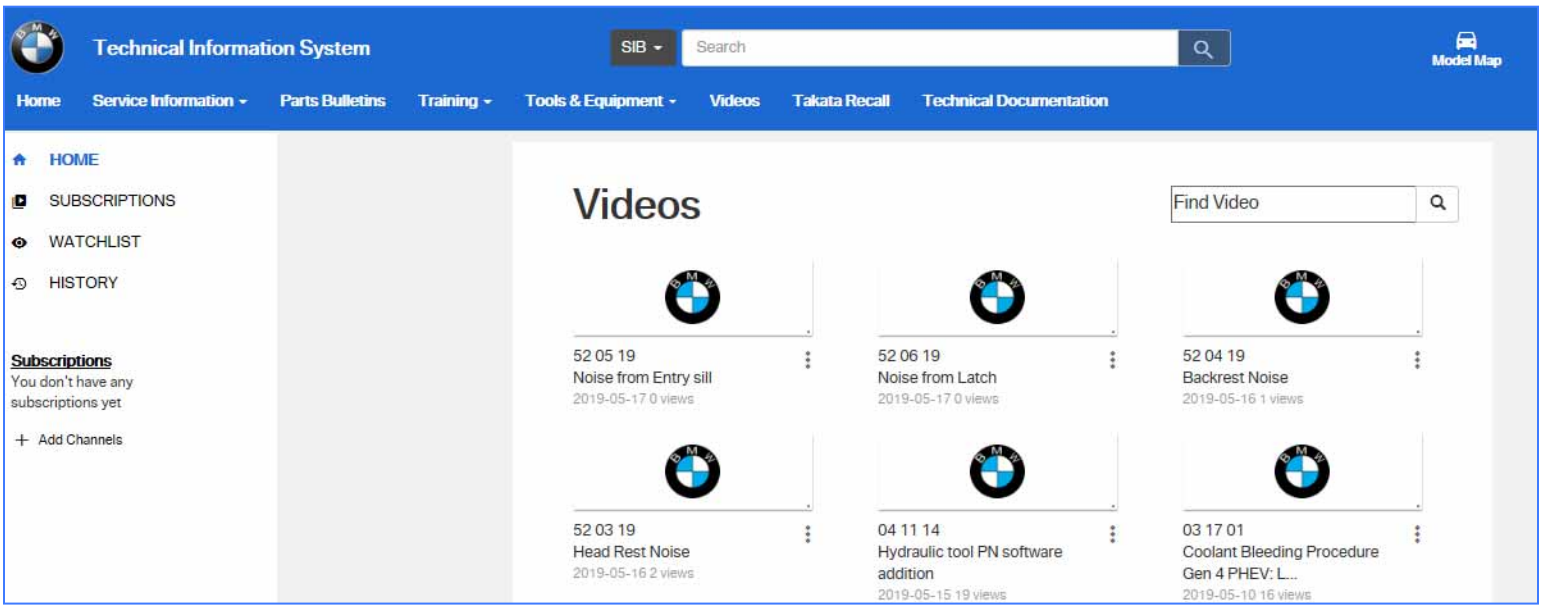
To access the Tech Hotspot videos, click on the **Video** tab (Illustration 35, #2). Videos can be added to a Watchlist and saved for future reference and easy retrieval. To add a video to the Watchlist, click on the Kebab icon, the row of three vertical dots (left illustration), to the right of the topic that will bring up the menu choices. The menu contains a selection for adding the video to the Watchlist.

TIS 2.0: To Get There

The latest version of TIS must be accessed from DCSnet. Navigate to DCSnet directly from the DealerSpeed login page or from the CenterNet menu bar. From the DCSnet homepage, find and then select **TIS** which is located on the left side of the page. There will usually be a **BMW** as well as a **MINI** TIS link that will be visible.

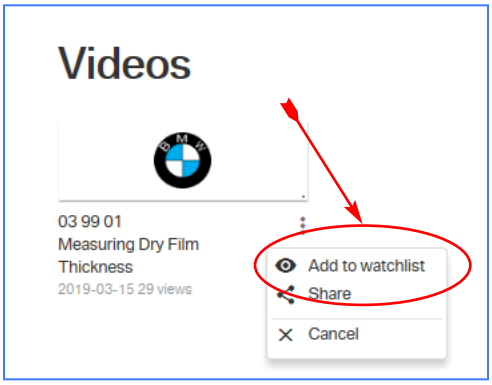
TIS 2.0 can be viewed using a portable device or a PC using the Google Chrome web browser. Navigate to Dealerspeed at https://dealerspeed.net/main/, select DCSnet, and then click on the TIS link found on the DCSnet homepage.

Illustration 36: Tech Videos are located in TIS



Using the Video Watchlist

To better manage useful video clips, users can add videos to a Watchlist. From the list of videos, click the Kebab icon to the right of the video title and select Add to Watchlist. When the Videos application in TIS is launched again, simply select the Watchlist on the left side of the screen to view videos that have been saved to the Watchlist.



When the Watchlist has been launched when visiting the Video application in TIS, videos can be:

- Replayed
- Re-ordered and arranged
- Removed from the Watchlist.

To manage any Watchlist that a user has created, the user only needs to click on the Kebab icon to the right of any saved videos and select the preference from the list shown.

SERVICE INFORMATION BULLETINS

Service Information Bulletins can provide supplemental information about repair procedures, Warranty actions, Campaigns and Recalls, troubleshooting procedures for specific Fault Codes, system diagnostics based on symptoms not covered in AIR repair documents, and repair guidelines for problems not found in the AIR **Repair Instructions** section . Additionally, SIBs can provide timely information about newly approved service equipment and repair materials.

SIBs can be accessed from either the TIS homepage or from AIR.

Accessing SIBs From TIS 2.0

Select the **Service Information** tab found on the Menu bar. The **Service Bulletin** application can be accessed here. The Service Bulletin link provides several search filtering options. When the Service Bulletin application is launched, the page will disp;lay four sub-menu tabs:

- All
- New
- History
- Saved

The **New** tab will show the most recently added bulletins. The menu bar will also show the number of new bulletins that will be shown.

Users can filter by:

- Main Group
- Series (Platforms)
- Year Published

If the user knows the approximate date that a bulletin was published, a date range with a starting and ending date can be specified to search for a specific topic. The **Search bar** can also be used to find bulletins using key words or phrases. Be aware, though, that an exact phrase or word needs to be entered into the search bar.

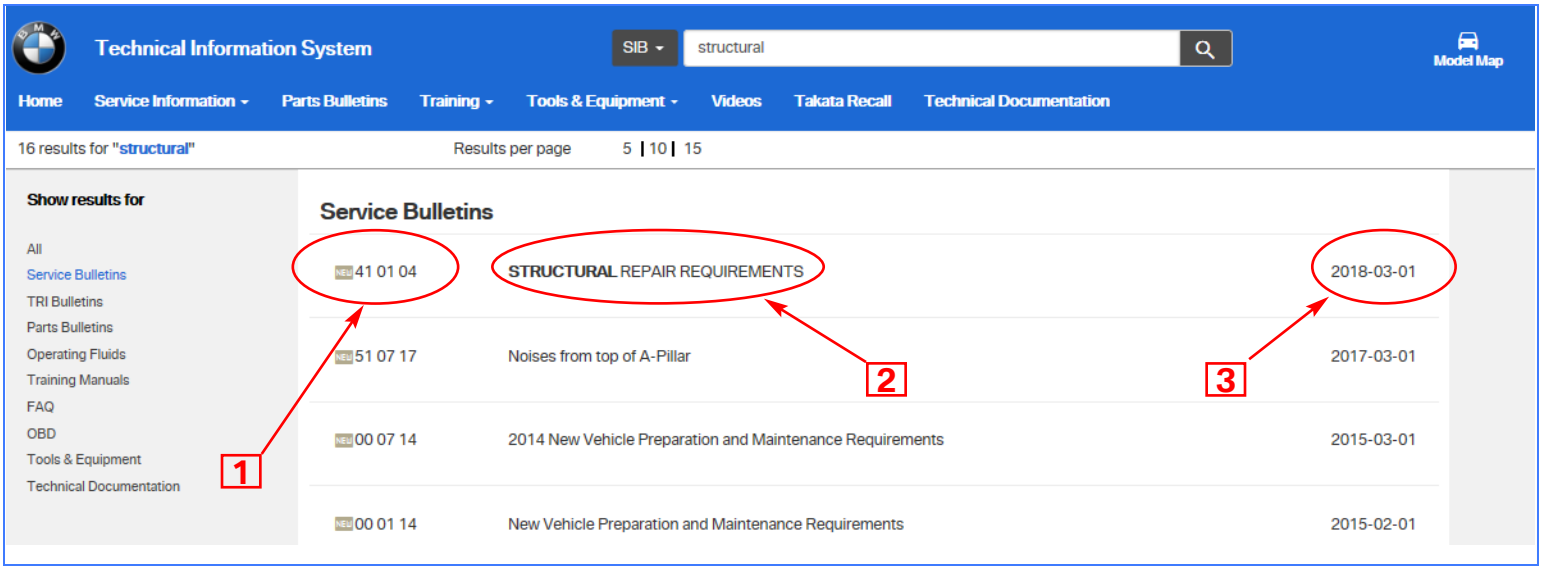
To use the **Search Function**, enter a search term in the Search Bar. Like most other AIR searches, the application looks for **exact matches** unless placeholders are used. Correct terminology and accurate spelling are therefore essential. Searching for an SIB about a “steering rack” or a “rack and pinion” will yield no results. However, a search using the term “steering gear” when entered as a search term yields several matches.

SIBs are dated with the month and year of publication. If a bulletin is found in the list, it is still active regardless of the date of publication shown on the bulletin. In some cases, bulletins may be updated, but do not assume that an older bulletin is no longer in effect. Only active bulletins are retained in the online database.

Independent Repair Facilities in the US as well as Canada who cannot access TIS 2.0 should obtain any needed SIBs from their sponsoring BMW dealership.

When a SIB or a list of service bulletins is shown, there will be three columns:

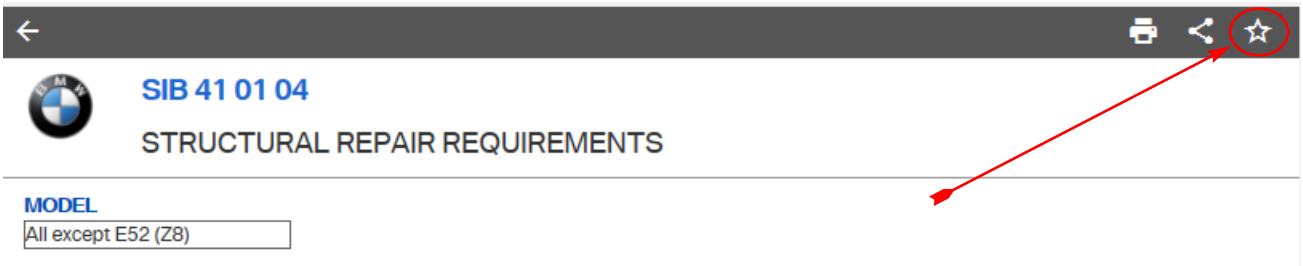
- Bulletin Number (#1, below)
- Bulletin Subject (#2)
- Date of publication (#3)(#1, below)



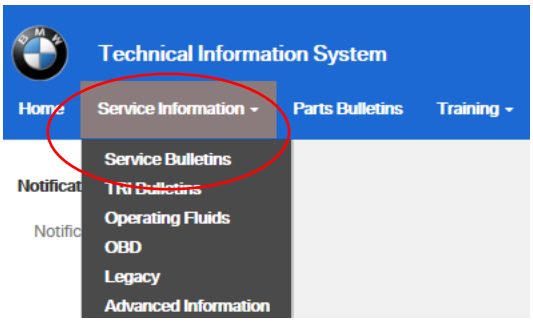
A Posting Date appears at the bottom of the SIB. This is the date when that particular bulletin was posted to TIS 2.0 (Illustration 37, #1).

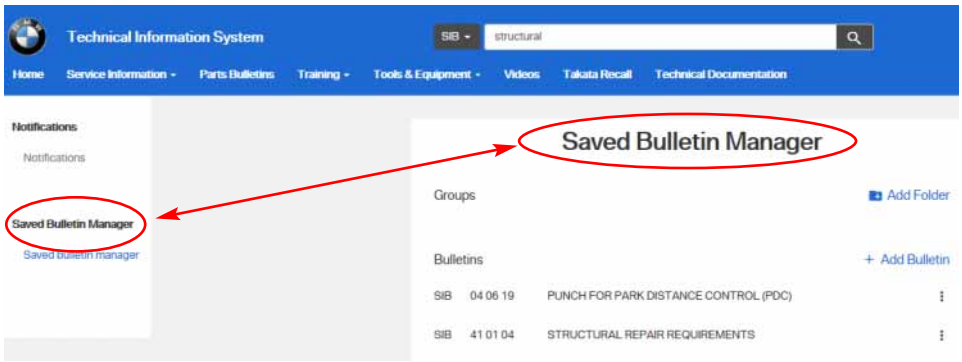
Illustration 37: The TIS 2.0 posting date

To save a bulletin for future retrieval, click on the hollow star on the right side of the bulletin header when it displays. It will then appear in the **Service Bulletin Manager** list of bulletins.



The **Saved Bulletin Manager** is located on the first page displayed after clicking on the **Service Information>Service Bulletin** found in the menu bar on the top of the TIS 2.0 homepage.

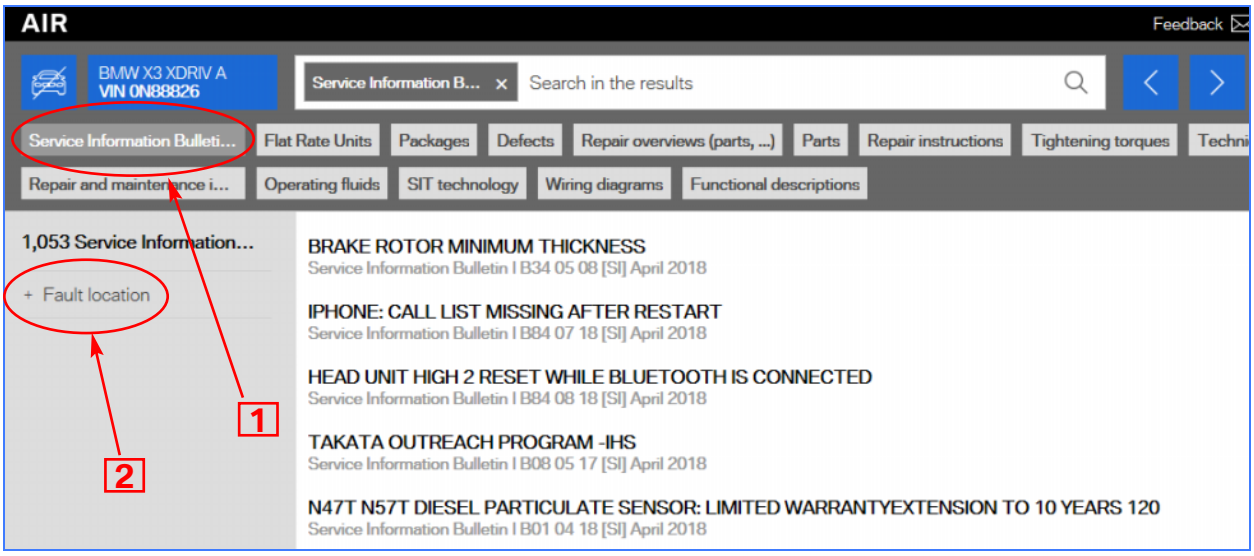




Accessing SIBs From AIR

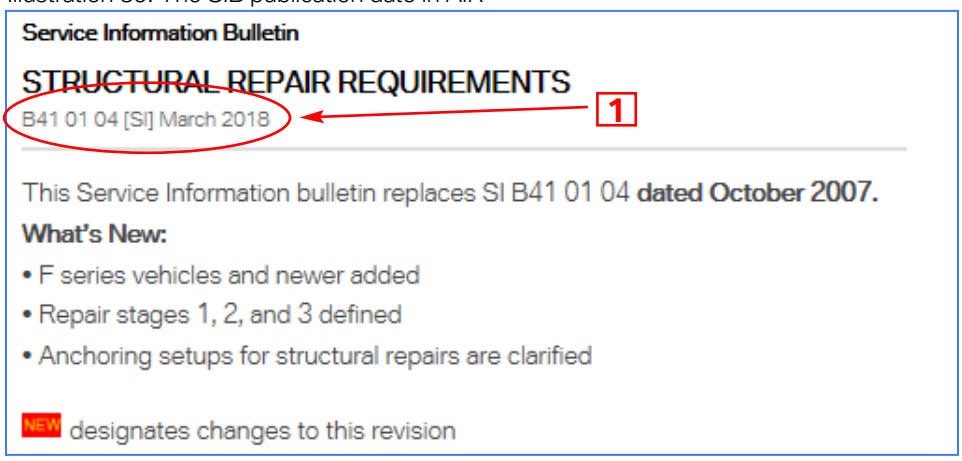
Bulletins can be accessed by clicking on the **Service Information Bulletin** category button at the top of the AIR homepage (Illustration 38, #1). Searches for bulletins are carried out in the same manner as with other AIR applications. Users can expand the **Fault Location List Header** (#2) and then select the Main Group where a bulletin resides. The user can also enter keywords in the Search bar and use placeholders.

Illustration 38: Service Bulletins in AIR



These are the same documents that can be found in TIS. Like SIBs found in TIS, bulletins are dated with the month and year of publication (Illustration 39, #1).

Illustration 39: The SIB publication date in AIR



Summary

- While the **Flat Rate Units** application is primarily used for determining warranty repair procedures and establishing Warranty Flat Rate times, it may be beneficial to help establish repair times for newly released vehicles, identifying corresponding AIR Repair Documents, and for adding essential repair steps to a damage report that may not be noted in a commercially available estimating database or an estimating guide.
- The **Flat Rate Guide** includes operations that BMW considers essential to performing a quality repair. In some cases, these operations may not be called out in commercially available Crash Estimating Guides.
- AIR provides repair information and procedures that must be followed to assure a complete and safe repair to BMW vehicles.
- While Advisors, Estimators, and other support staff may not need to review every page of a procedure, the Flat Rate Guide and AIR will also help identify "not-included" labor operations as well as identifying any service parts that must be replaced.
- Always refer to AIR **Group 41 Body General** guidelines. This section should be reviewed by all Center staff responsible for body and paint service operations.
- **TIS 2.0** contains training manuals for both service as well as body & paint.
- **Technical videos** are located in TIS 2.0. Users can save useful videos by creating a **Watchlist**.
- **Legacy Repair Information** can be found in TIS 2.0 for some older models.
- **Service Training Manuals** can be accessed using TIS 2.0. These manuals can provide valuable information on new models as they are introduced.
- **Service Information Bulletins** provide additional diagnostic procedures, special warranty repair guidelines, and updates for repair professionals. Be familiar with SIBs and how to locate them.
- SIBs that are helpful and that may be referenced often can be saved in TIS 2.0 using the **Saved Bulletin Manager**.

THE PARTS CATALOG

OVERVIEW

In this module, we will discuss:

- Identifying the parts required for a particular repair by part number and quantity
- Where to find detailed parts illustrations
- How to identify additional parts that are considered to be “absolutely vital” to be installed when another component is replaced
- Utilizing different applications to determine parts availability and identifying the most current parts prices

While the Parts Department at the BMW Center can provide most of this information, there will be times when it is faster and easier for the advisor or support staff member in the collision center to conduct parts research.

WEB ETK

Many collision estimating database programs provide part numbers for major components. In the case of components that can be ordered in several colors, some commercially available crash estimating guides may only provide the part number for the basic color, which may be black, The guide instructs the user to “order by description and color”. Additionally, part numbers shown for superseded parts may not be accurate in an estimating database.

With ETK, the serial number and VIN are decoded and part numbers for all body service components in the color that was installed at the time of manufacture are made available to the advisor.

ETK is an abbreviation of the German phrase, **Elektronisher Teilekatalog**, which translated into English means **Electronic Parts Catalog**. While TIS 2.0 labels this application ETK, it is commonly referred to in North America as the **EPC**.

Additionally, **ETK** provides detailed drawings for all service parts available for BMW vehicles. The catalog also indicates the required quantities in the case of fasteners.

ETK can be used to:

- Print a detailed drawing of an area of the vehicle showing the parts in an assembly
- Obtain the most current BMW part numbers
- Identify superseded parts and part numbers that are no longer valid
- View notes about any other components that must be replaced at the same time another part is being replaced
- Determine the installation quantity for a specific part

Before a Center Associate can use ETK, they must be granted access by their DEMS or RSDM administrator as previously noted. Unlike previous versions of WebEPC tat first needed to be configured, ETK does not need any setup before use. This is done using the **Settings** page. We will review how to change the ETK Settings later in the program.

ETK - To Get There (USA):

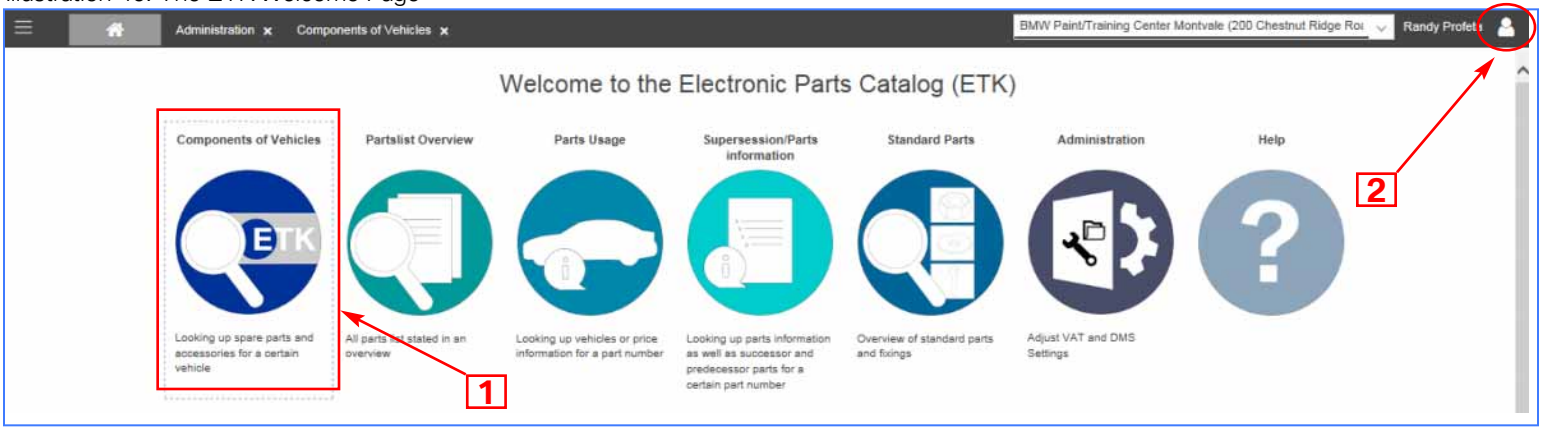
1 Navigate to **DCSnet** from either the **Dealerspeed Start** screen or from **Centernet**.

2 Find and then click the **ETK link** in the left-hand column.

3 The user will be taken to the **ETK Welcome Page**

Once at the ETK Welcome Page, click the **Components of Vehicles** icon (illustration 40, #1) to begin.

Illustration 40: The ETK Welcome Page

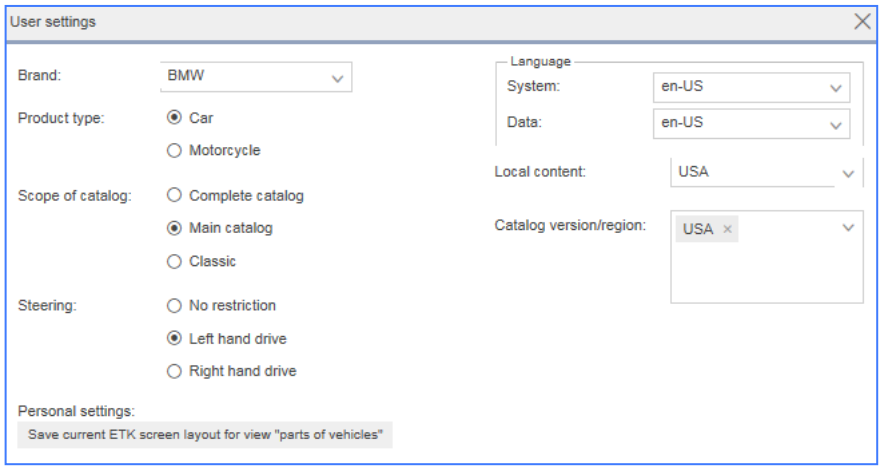


Customizing ETK using the Settings page

ETK can be set up very similarly to the earlier version of the WebEPC. Many of the base settings will work for most users, but users can customize ETK if they want to change:

- Car or motorcycle catalog
- BMW, MINI, or BMW i catalogues
- Steering: right-hand drive, left-hand drive, or no restriction
- Language
- Local content by country
- Catalog version or region

To get to the Settings page, click the silhouette icon in the upper right-hand corner next to the associate's name (Illustration 40, #2, above.) and the Settings screen will display (below).



COMPONENTS OF VEHICLE

When the Components of Vehicle icon is selected from the ETK home page, the **Components of Vehicle** page displays and will show five individual windows:

- Diagram Search
- Diagram - Graphic
- Diagram - Parts
- Parts List
- Parts Information

Diagram Search

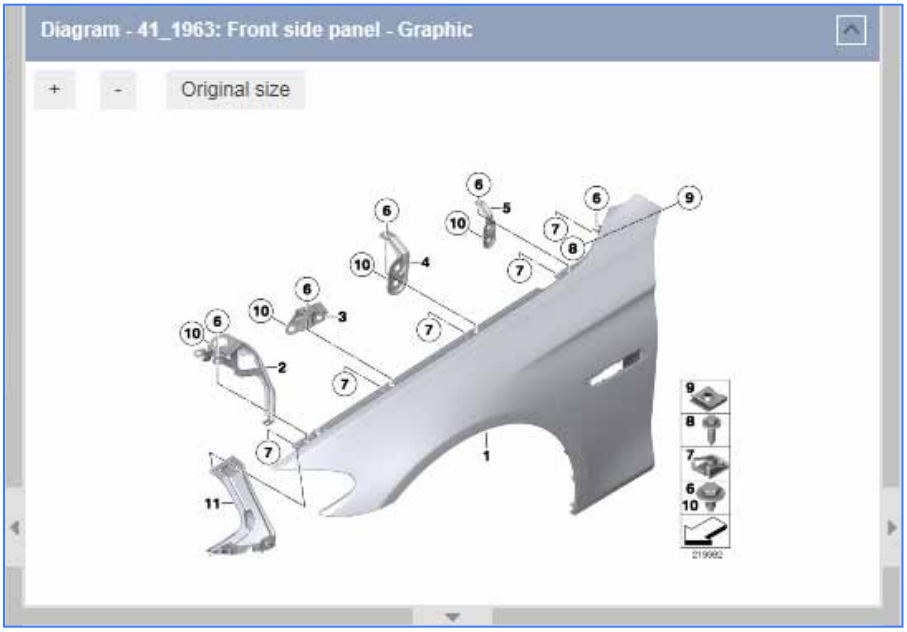
The default view, **Graphic**, shows icons for the BMW Main Groups. While there are other ways to display the Main Groups, we will only look at the **Graphic** illustrations. As the user moves a pointer icon over the groups, the name of that Main Group will appear.

In the illustration to the left , when the pointer is hovered over MG 13, the MG title, **"Fuel Preparation System"** appears in a gray box.

To search for a part, select the Main Group and then find the appropriate subgroup. Once a subgroup selections has been made, the image will display in the **Diagram - Graphics window.**

Diagram - Graphics

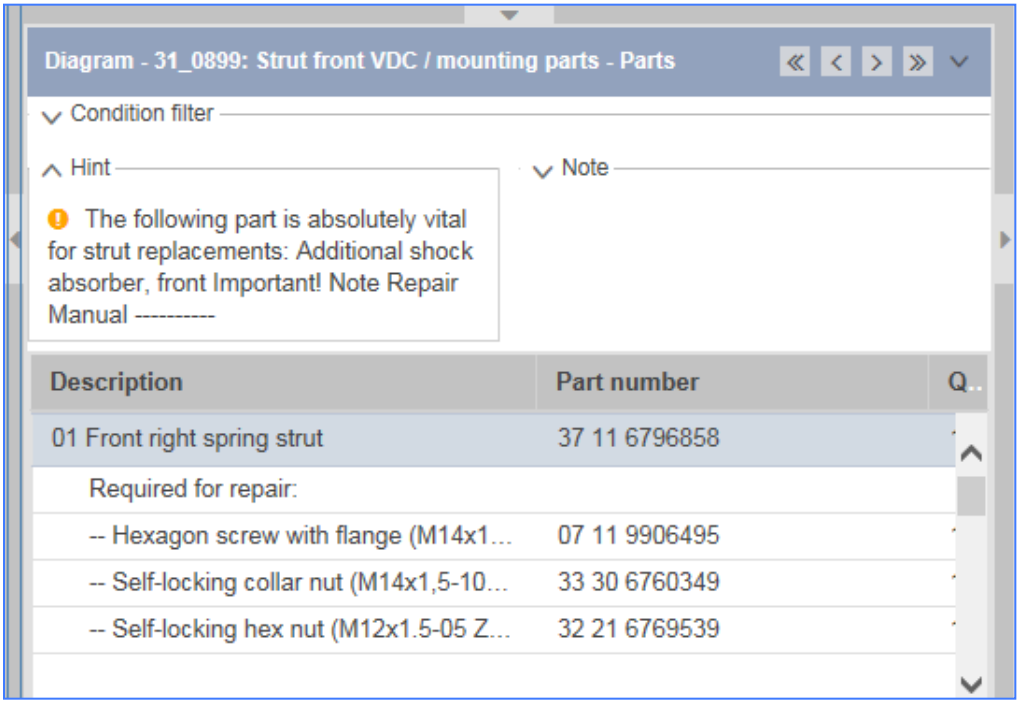
This window will display an exploded diagram of the subgroup item that has been selected. The diagram can be enlarged or reduced by either clicking on the plus (+) or minus (-) symbols in the upper left-hand window corner or using a scroll wheel. after sizing the image to display maximum detail, Images can be printed by right-clicking the window. Depending on the PC display settings, users may need to experiment with window magnification and orientation (Portrait or Landscape view) obtain the best print image.



The arrows on the perimeter of all frames can be used to resize the frame. The arrow in the upper right-hand corner of the frame can be used to collapse the panel. Users will need to work with panel sizes to get the views that best suit their needs.

Diagram - Parts

This panel will show part descriptions, part numbers, notes and hints to the user. In the illustration below, the user is provided information about front strut replacement for a vehicle with Vertical Dynamic Control (VDC).



Occasionally, the **Hint** message will indicate that when one component must be replaced, other items are required and will also need to be replaced to comply with BMW repair policies. The user may see statements like:

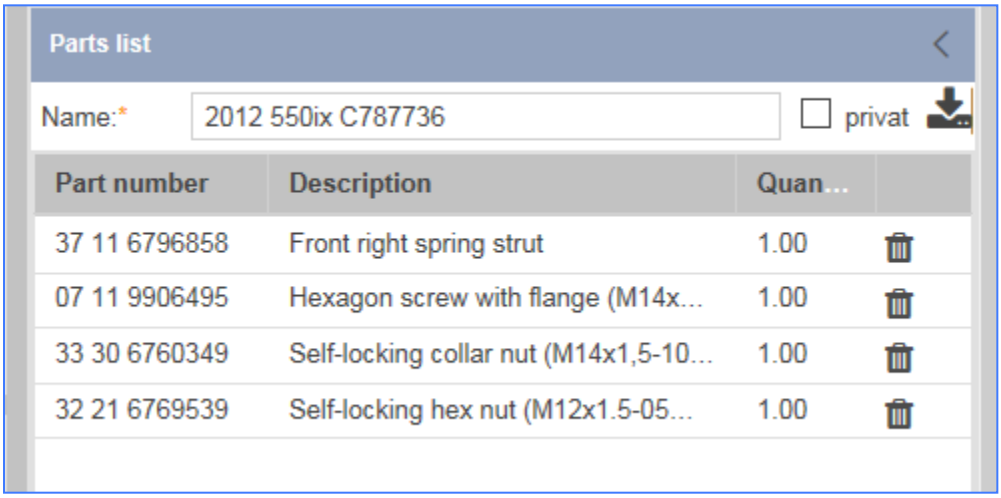
- "The following part is absolutely vital for [service to a component or system]"
- "Required for repair"
- "Only in conjunction with..."
- Important! Note Repair Manual

Additional Parts Requirements

Hints provide warnings to the ETK user that additional parts are required to complete the repair. In some cases, components may need to be replaced in pairs, and when one component is replaced, another part must be replaced as well. It may indicate that fasteners must be replaced. While these warnings are helpful, users should always cross-reference AIR to assure that repairs and parts replacements comply with BMW NA policies. There may be additional requirements not called out in the ETK.

Parts List

Users can create parts lists for jobs if they desire. The parts list can be named and stored. Simply double click on a part to add it to the Parts List. The list can be made private or exported in a CSV file format.



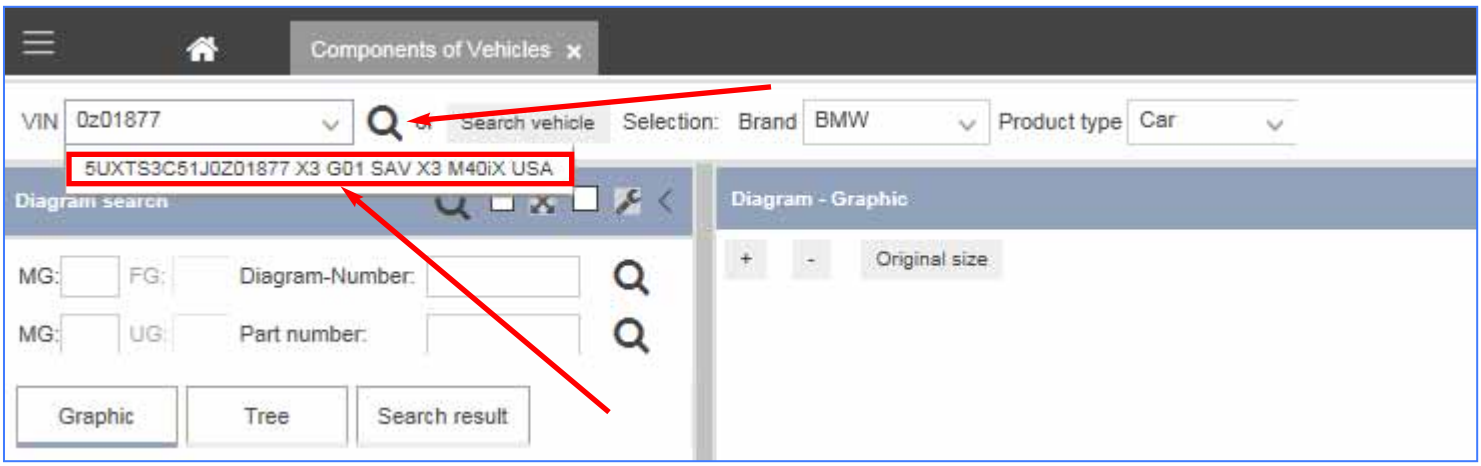
Parts Information

The Parts Information panel contains nine tabs. The first four, **Overview, Technical, Price, and Stock** will be beneficial to the collision advisor. The advisor can confirm the Retail Price and availability of a part quickly. While this application does not check dealer stock, it will check availability at Regional Distribution Centers as well as the BMW Central Distribution Center. The Parts Availability application in DCSnet can provide additional detail.

Part pricing can be verified by clicking on the Price tab. The Retail as well as the Net Price can be verified.

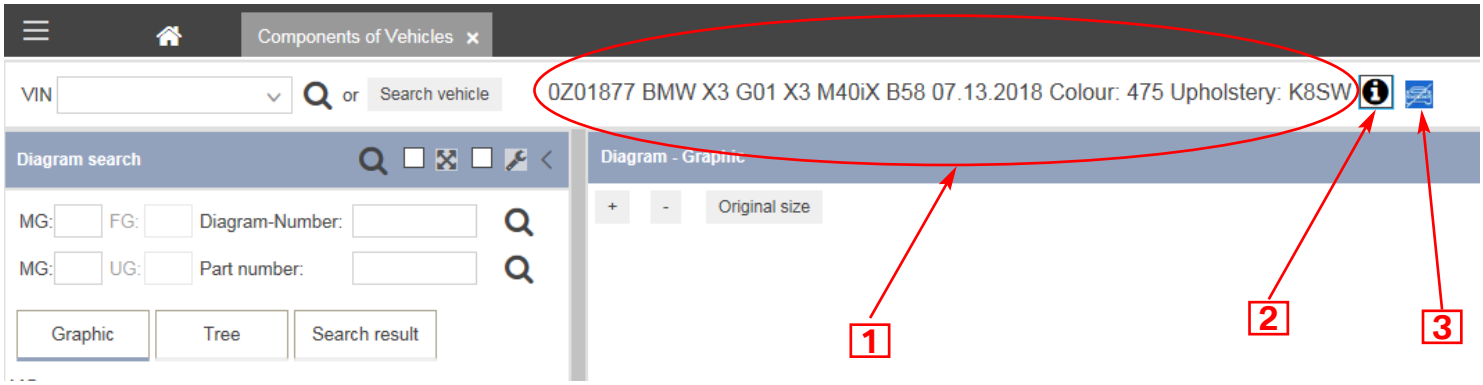
ETK Components of Vehicle panel

This parts research application is the one that is most frequently used by collision advisors. Like the WebEPC, it will decode the VIN and display parts and options that were installed on the target vehicle during assembly. Enter the last seven characters of the Vehicle Identification Number (VIN) into the VIN entry box in the upper left-hand corner of the screen. If the serial number is valid, the 17-digit VIN, Model, Platform Code, body style, Model Name, and country of origin will be displayed in a box immediately beneath the entry box. Clicking on the box that just appeared or the magnifying glass to the right of the entry box will load the vehicle into ETK (illustration immediately below).



Once the vehicle is entered, basic vehicle information is displayed at the top-center position on the page. This provides BMW associates with some basic information about the vehicle including (from left to right) the serial number, brand, model, platform code, exterior identifier (model name), engine code, full production date, and both the exterior and interior color codes (Illustration 41, #1).

Illustration 41: The ETK Information Header



If the user needs more information, click the "I" icon (Illustration 46, #2) just to the right of the basic information. To delete the current vehicle and add another, click the blue icon to the right of the Information Icon (Illustration 46, #3).

The vehicle information screen contains **Vehicle Details**, **Filling Quantities,** and information about the **Options** installed when the vehicle was manufactured. **Individual Vehicle** data such as Frozen Finish color codes and special interior component specifications can also be viewed here. If Individual Data is present, it will be indicated on the Vehicle Details page (Illustration 42, below). To find out what it includes, click the Options tab and scroll to the bottom of the form. The Individual Options will be listed there (Illustration 43).

Illustration 42: Vehicle Details tab with "Individual Data" present

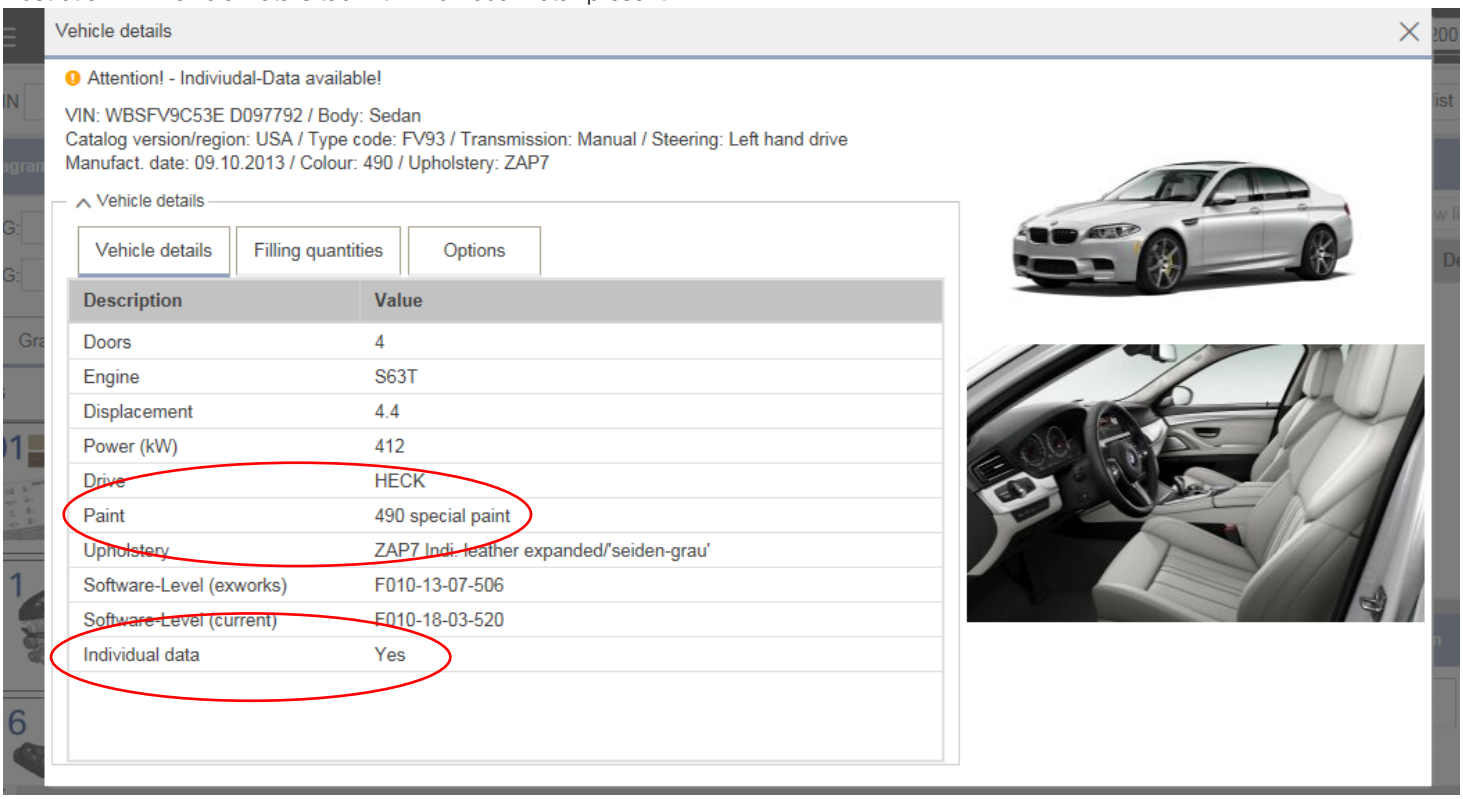
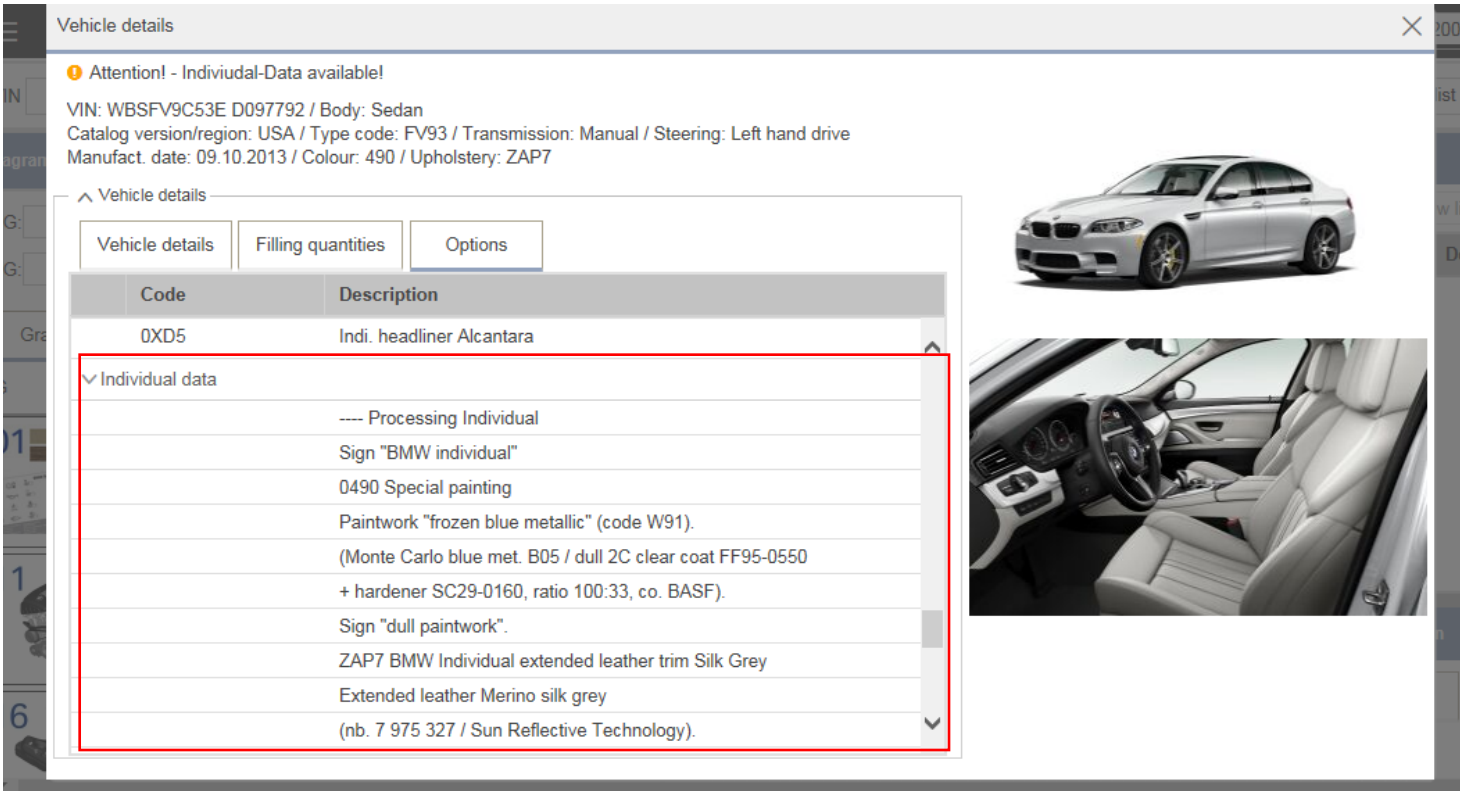


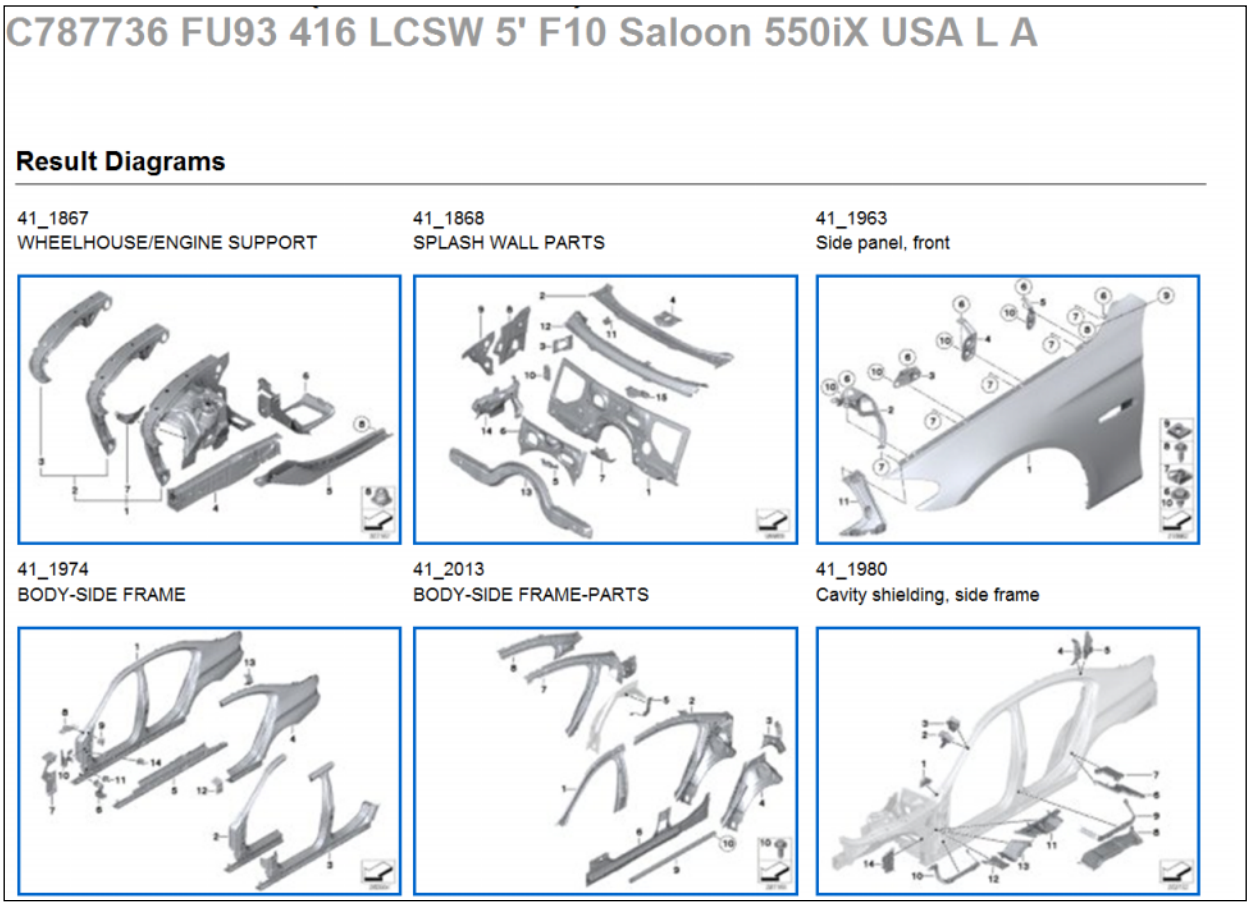
Illustration 43: The Individual Data options list



Locating a Part using ETK

Located on the left side of the screen, the user will click on the Main Group for the part being sought. The chart of Main Groups can be found on **page 28**. A list of common collision repair service parts can be found on **page 29**.

The user will then see several illustrations with text descriptions of the various component assemblies for each diagram. In the illustration below, MG 41 has been selected and several sub-assemblies are shown. The user can click on any illustration to see the individual parts breakdown with part numbers, quantities, and any special notes. These are some of the subassembly illustrations in Group 41. Illustration 41_1963 shows the **Front Side Panel** and related components including fasteners.



When a component group is selected, ETK then drills down even farther and provides a larger parts illustration as well as a text list of the parts with part quantities and part numbers. These items are displayed in the center windows on the page labeled **Diagram - Graphic** and **Diagram - Parts**.

Individual windows can be resized by either clicking on the arrows in the borders or by clicking and dragging on a border with a mouse or other pointing device. Graphic controls for each window will let users expand or collapse panes, and increase or decrease magnification. If a pointing device with a scroll wheel is used, the scroll wheel can enlarge or reduce the image or text.

Locating Parts Using AIR

Although ETK application contains more features than the Parts Catalog in AIR, some CCRC associates may not have the credentials or access rights necessary to access ETK. The parts catalog in AIR has most of the parts information that would be needed by a collision advisor.

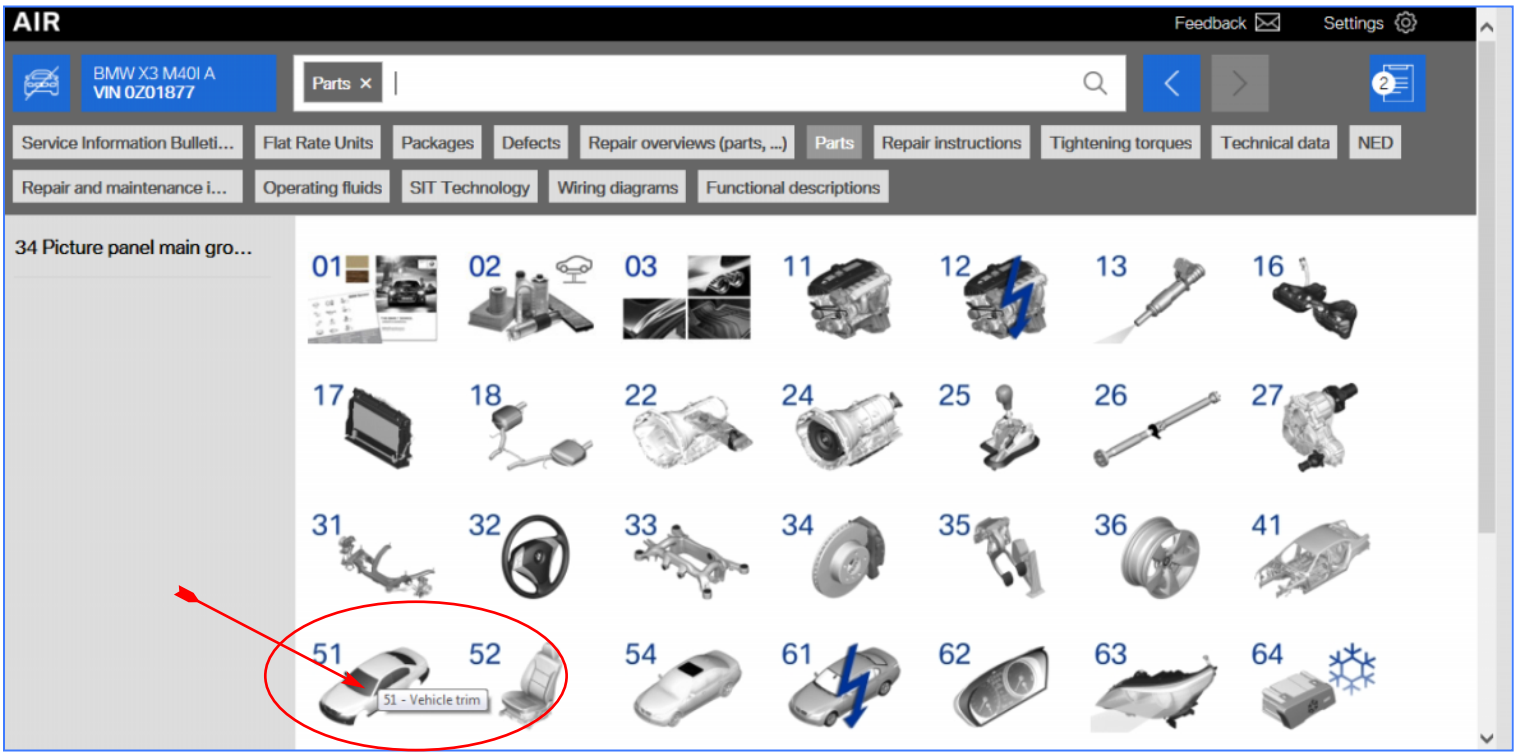
The **Parts** application in AIR provides advisors with an easily accessed parts system reference. While not as detailed as ETK, the Parts tab can provide:

- Graphic illustrations
- Part numbers
- Special notes about parts replacement

The AIR Parts application has a homepage that is very similar to ETK. Users will need to know the Main Group where the part is located and then click on that icon. Should a user feel the need, a **Parts List** can also be created using this application

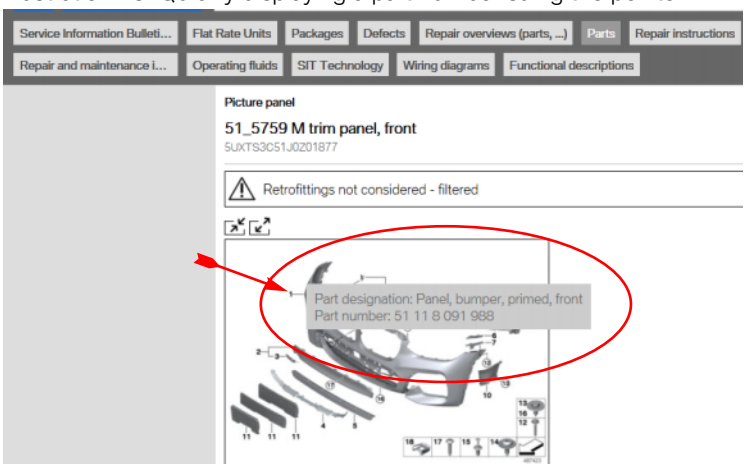
When the Parts application is first accessed, a page of Main Group icons will appear (Illustration 44, below). Like the ETK, a user can place a pointer over an icon to see its name. In the illustration, the advisor used a pointing device and hovered over MG 51 where the main group name, **Vehicle Trim,** now appears.

Illustration 44: The Parts application Main Groups



Like the Repair Instructions application, users can add parts sections to their Watchlist. Part numbers can also be quickly displayed by using a mouse pointer. Place the pointer over the desired part in the parts illustration and the part number will appear (Illustration 45, below).

Illustration 45: Quickly displaying a part number suing the pointer



DCSnet Parts Availability

In addition to data found in the ETK Parts Information window, center associates with appropriate login rights can check Parts Availability and current parts pricing in DCSnet. While this may not be a commonly used feature, it is beneficial in several situations:

- Pricing collision repair work on newly introduced models when vehicle information is not available in commercially available estimating databases
- Providing the most current and accurate parts pricing for Customer Pay repairs
- Confirming local parts availability before scheduling or accepting a repair

In many cases, it is best to rely on the parts professionals at the BMW Center to provide this information, especially when quoting larger repairs involving many parts. For smaller repairs, this web application along with ETK can provide the advisor with real-time parts information and help minimize customer inconvenience.

DCSnet Parts Availability - To Get There

Center Associates will first need to navigate to DCSnet. Users can access DCSnet several ways:

- From the Dealerspeed login screen, select **DCSnet.**
- If CenterNet is already running, select the DCSnet menu button. In some cases, the user will be asked to provide a login name and password before this popup application can start.

Using the Parts Availability Application in DCSnet

Once on the **DCSnet** home page, the **Parts Availability** application link is found in the left-hand margin. This is the same location that the **Vehicle Service History**, accessed earlier in the program, can be found. Click on the **Parts Availability** link in the left-hand margin.

Users can enter the part numbers to be researched. The results default to providing information on a **National** scale for the part number(s) entered. There is a **Locator Option** feature that allows users to select from **National, Regional, Market**, or **Top Ten** search options. Generally, users will select the **Market** sort option, followed by **Regional**, and then **National**.

This database updates in real time. It is not uncommon for the quantities to change when the list is again reviewed.

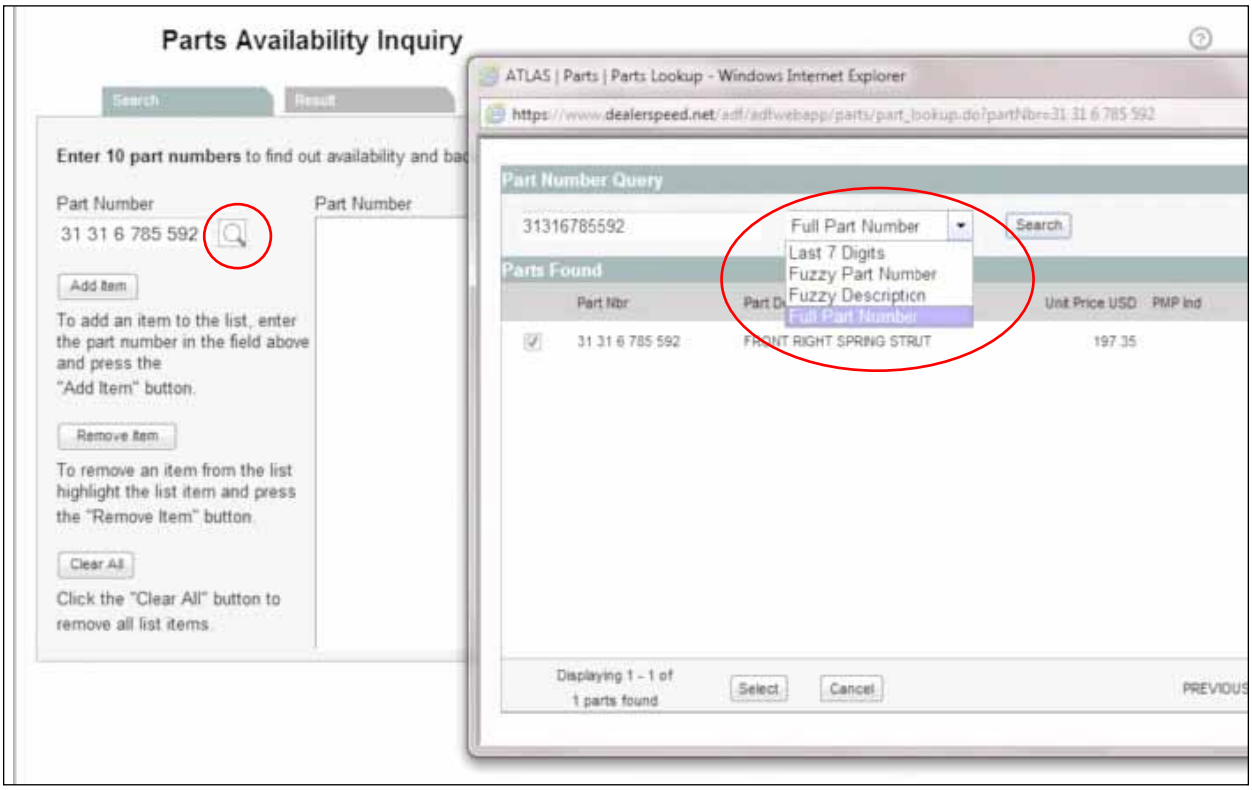
While DCSnet is not available to independently-owned and operated Canadian and US CCRCs, it is still a best practice to check parts pricing for Customer Pay repairs with their sponsoring dealer's parts professionals.

Once the user is on the **Parts Availability** screen, they will see a part number input box. One or more part numbers can be entered for examination. An easy way to add part numbers is to copy and paste the required part numbers from ETK.

If the user wants to quickly check the part cost, click on the **Magnifying Glass** icon to launch the **Part Number Query** function. The icon is located immediately to the right of the part number input box.

Additionally, if the, part number is only partially known, such as a part having a damaged or defaced part label, a portion of the number can be input and the Magnifying Glass icon then clicked. If a partial number is input and then entered, the **Part Number Query** popup window opens and provides additional search options, located in the center of the page. The dropdown menu includes these additional search options:

- Last Seven Digits
- Fuzzy Part Number
- Fuzzy Description
- Full Part Number (default setting)



Summary

- While commercially available estimating guides contain parts prices, part numbers, and part diagrams, BMW resources are a more reliable, complete, and current source for BMW parts information.

- ETK and the Parts Catalog in AIR provide detailed isometric drawings for different areas of the vehicle within each Main Group.

- ETK and the Parts Catalog in AIR will also alert users to situations when components must be serviced in pairs or when other parts must be replaced.

- In many cases, the parts professionals at the BMW Center can provide information about parts pricing and availability. Occasionally, the advisor or other collision center support personnel need immediate access to parts information. The WebEPC and DCSNet Parts Availability applications provide quick access to this information.

- Certain items such as fasteners and attachment clips are only available in larger quantity. The DCSNet Parts Availability application will indicate the quantity in the package when shipped to the Center from the Parts Distribution Center.

- ETK can provide information about parts pricing as well as regional and international availability

- The **Help** function in ETK provides an expanded list of abbreviations used by BMW

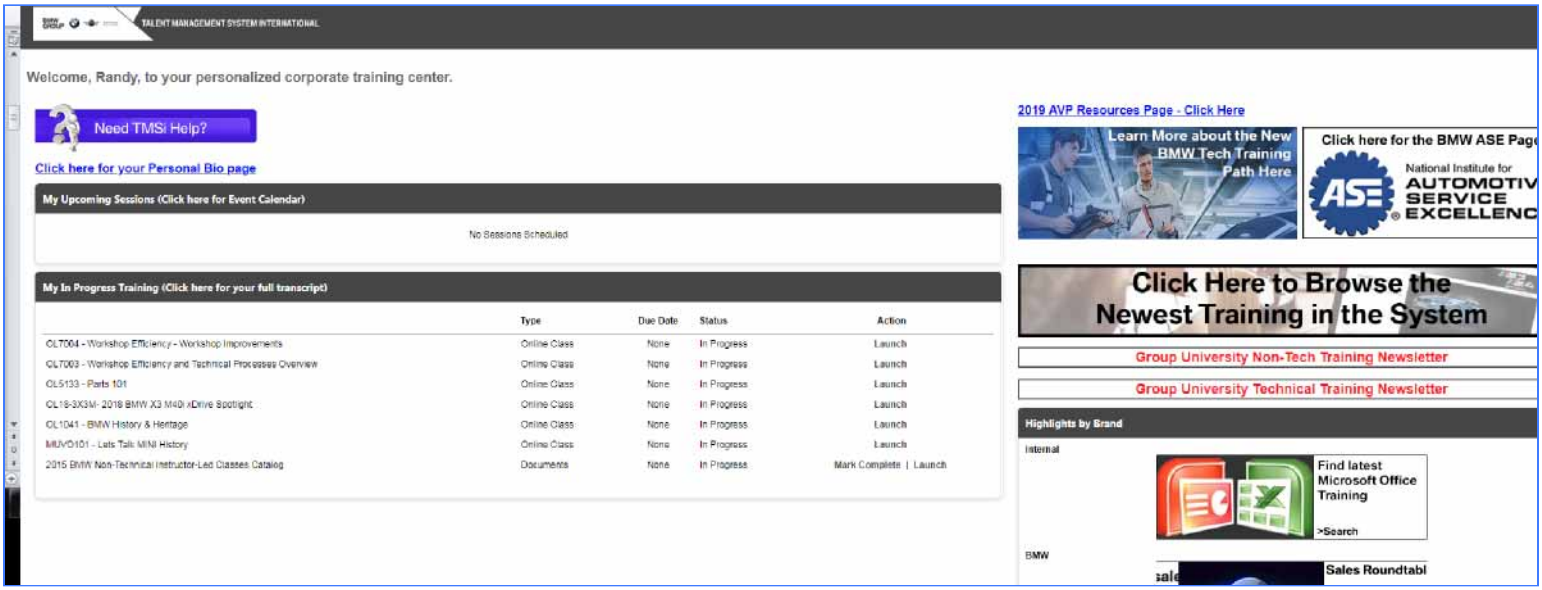
- ETK can help identify Individual Vehicle data such as special paint and custom interior components

THE BMW ASSOCIATE

Overview

In this module, we will discuss:

- BMW Training Resources, both instructor-led and online
- Accessing the TMSi website
- Reviewing training completion records online
- Locating and enrolling in BMW training courses
- Using the **Product Knowledge on Demand (PKOD)** application to identify vehicle options.



TALENT MANAGEMENT SYSTEM INTERNATIONAL

The BMW Online Resource suite contains a broad variety of associate development and training programs. While we have already reviewed some the available online BMW Training Manuals earlier in the program, BMW has a separte site devoted to training activities that include on-line self-study programs (OL), Video On Demand (VO), Instructor Led Training (ILT), and Product Knowledge.

The Talent Management System International (TMSi) site contains training resources and provides access to self-study on-line training programs. Using TMSi, users can register for ILT courses. Here, Center associates and others with appropriate access rights can find their job-code based curriculum, review their training transcript, complete any required OL training sessions, and select desired training of interest. There are several other resources that BMW Center associates will fine helpful such as Product Knowledge on Demand as well as Tech Hotspot Videos. Note that, as previously outlined, Tech Hotspot videos can also be accessed using TIS 2.0.

TMSI - TO GET THERE (USA)

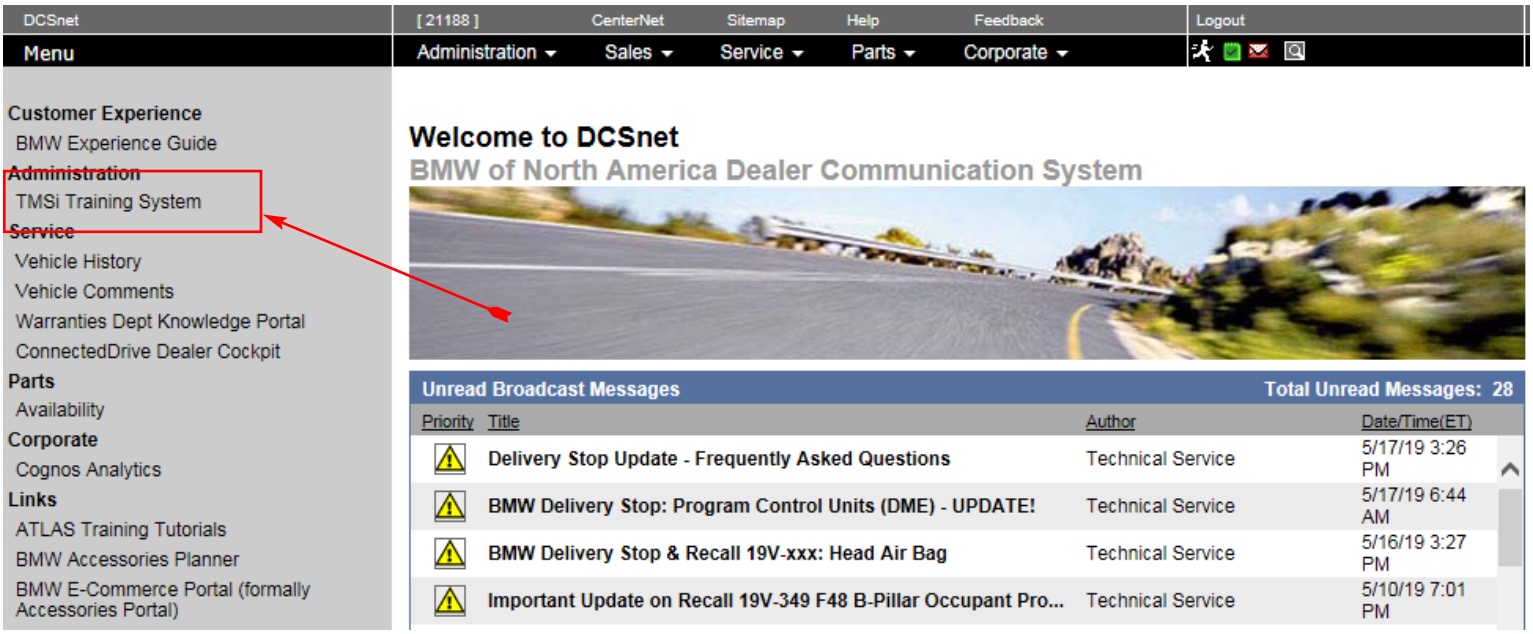
US dealer personnel for both BMW and MINI brands will access the TMSi training system by logging into the **DealerSpeed** portal and navigating to **DCSnet**. TMSI is launched from the **DCSnet** home page.

This module will provide some basic TMSi access information and will also review special considerations for accessing TMSi if an associate is currently active in DEMS in multiple dealers, or if an associate moves to another dealership.

Log into the US DealerSpeed Portal

In order to access the TMSi training system, BMW Center associates must have a valid DealerSpeed User ID and password to successfully login to the US DealerSpeed portal. If BMW Center personnel cannot login to the DealerSpeed portal, they must first obtain credentials from their manager or the BMW Center's Dealer Employee Management System (DEMS) administrator. The **TMSi Training System** link launches the application from DCSnet.

Illustration 46: TMSi web link location on DCSnet



TMSI - TO GET THERE (CANADA):

Canadian users for both BMW and MINI brands will access the TMSi training system by first logging into the **SGATE** portal.

1. Enter the S-GATE Dealer Portal at **https://sgate.bmwgroup.com/ca** and enter a valid **User Name** and **Password**.
2. From the menu choices at the top of the page, click on the **Aftersales** tab and then select **TMSi** (Illustration 47, next page).

If the user has previously added TMSi to their **Favorites**, click on the **TMSi** link found in the left-hand margin from the S-Gate landing page. (Illustration 48, next page).

Illustration 47: Launching TMSi from the Aftersales page

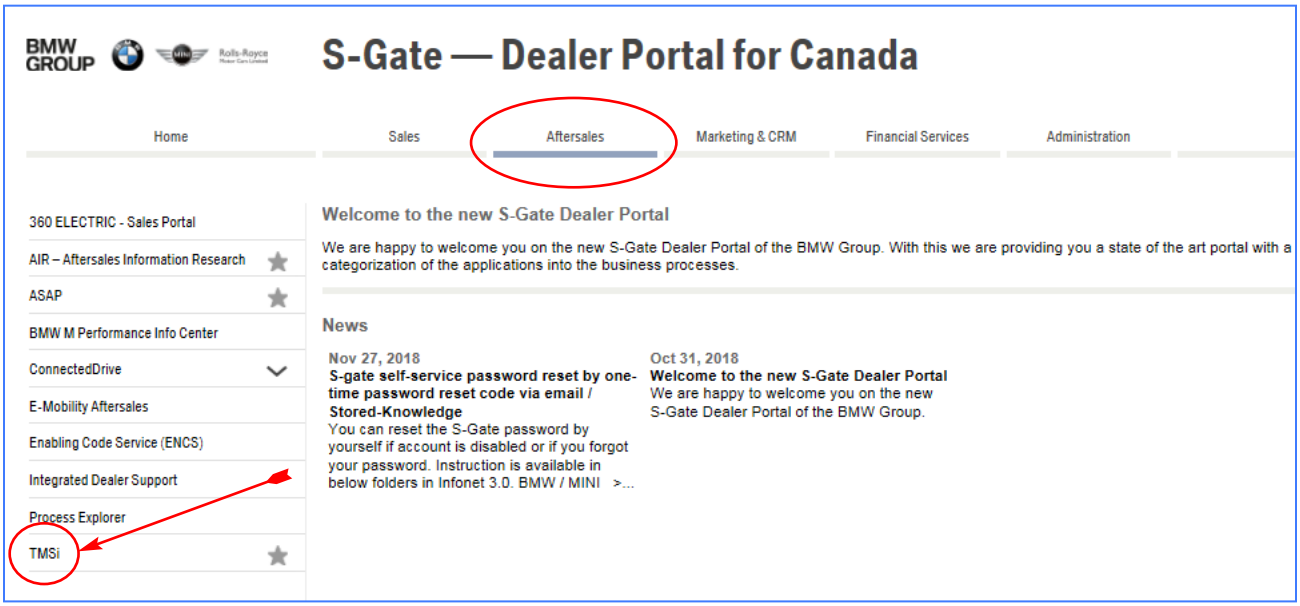
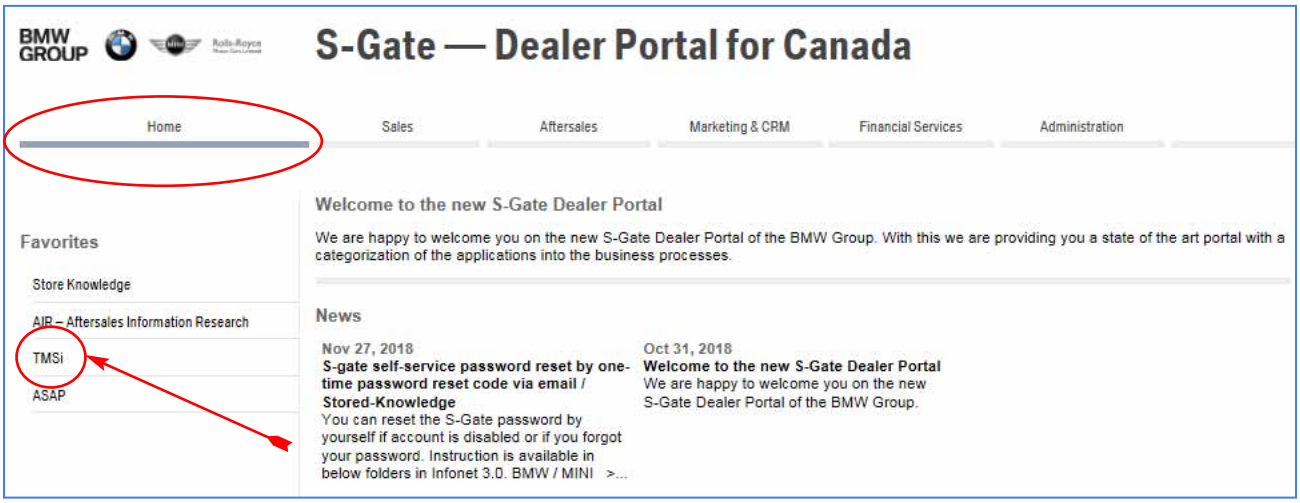


Illustration 48: Launching TMSi from the S-Gate landing page - Favorites



TMSi provides a broad range of resources. We will look at the primary resources that collision center staff should become familiar with.

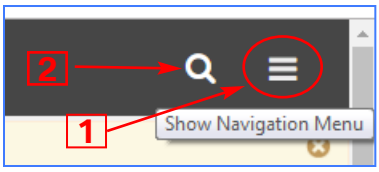
THE TMSI HOME PAGE

Many of the TMSi applications can be accessed several ways:

1 From the Home Page

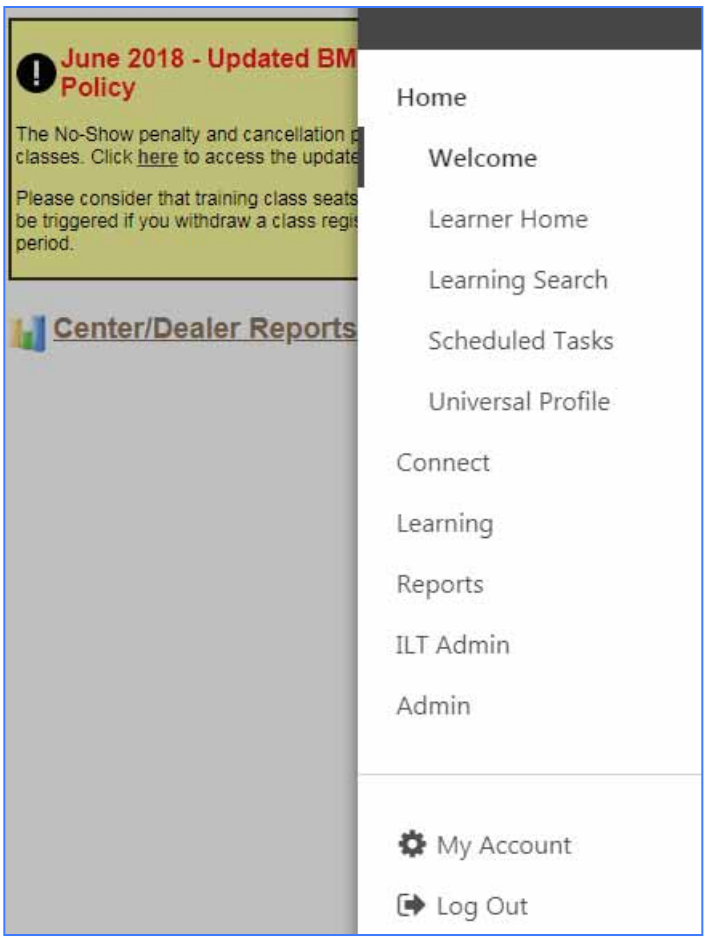
2 From the Navigation Menu

Most of the applications a user will need can be called up from the Home Page by clicking on a hyperlink. Like most webpages, there is a **Burger Button** in the upper right-hand corner (#1, below left) that brings up the **Navigation Menu**. The Navigation Menu can provide users with a quick way yo navigate to the applications that are needed. The **Magnifying Glass** to the left (#2, left) will bring up the **Search** function. We will look at using the Search function later in this module.



Navigation Menu

Clicking the Burger Button in the upper right-hand corner displays the choices available in the Navigation menu. Some are inactive or little used at this time. We will focus on the most useful applications.



Under **Home**, selecting **Welcome** returns the user to the TMSi home page from any screen.

The TMSi **Learner Home** is a page dedicated to the students. It makes it easy for the BMW student to check their training and search for additional courses. Users can also specify the **Subjects** that they have an interest. For more information about how to use this page, view the assortment of help videos by clicking on the **Need TMSi Help?** banner that can be found on the TMSi home page

The **Learning Search** page allows users to search for courses using course codes, titles, or keywords. Users can also apply filters to narrow down the results.

Scheduled Tasks is currently inactive and is not in use.

Universal Profile opens up the user's transcript page. From here, the user can also select their **Bio, Actions,** and **Snapshot**

Managers also have access to a **Reports** screen.

The **My Account** link has several features. From here, users can change passwords, add a signature, and upload a profile image.

Users can also **Log Out** from TMSi as well.

The TMSi Welcome Page

The **Welcome** page or **Home** page is where BMW associates can access their training, view upcoming sessions and see their brand highlights. BMW Center associates can search for training from this page. Please note that managers and training approvers at the BMW Center will have a few additional features on their Homepage. This information can be found in an online video in a section of TMSi specific to those roles.

Associates will have access to training resources for all the Brands to which they are aligned. For example, if an associate's DEMS account record indicates that they belong to both the BMW and MINI Brands, the associate will see both **Brand Highlights** on the **Welcome** page. They will also be able to search for training material belonging to either Brand when searching for courses.

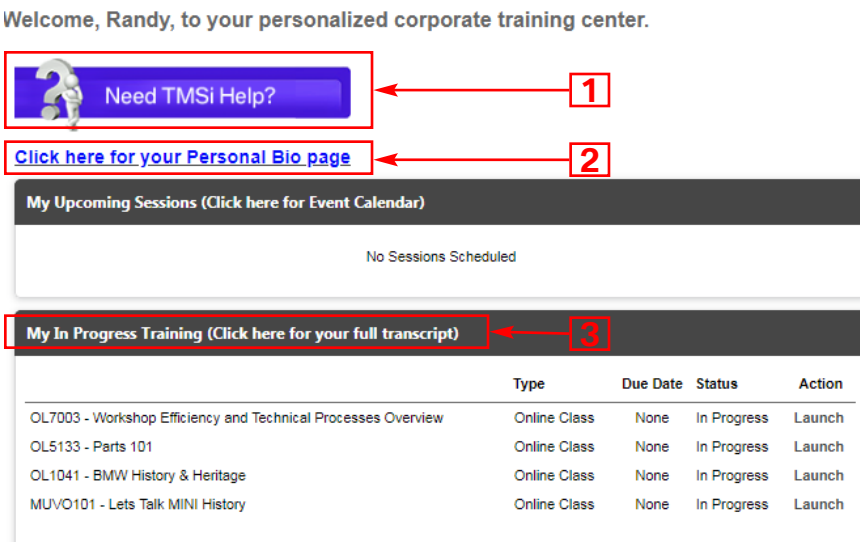
TMSi Help

Just below the TMSi banner icon in the upper left-hand corner, there is a blue **Need TMSi Help?** button (Illustration 49, #1, next page). This calls up the Help menu with submenus for BMW associates, BMW Managers, and Approvers. The **Frequently Asked Questions** (FAQ) sections addresses many of the most common help topics. Many of the selections will launch a tutorial video that guides you through the FAQ.

The Personal Bio page

This page can be accessed either from the landing page or from the Navigation Menu. Clicking on the link below the Help button takes users to their **Personal Bio** page (Illustration 49, #2).

Illustration 49: Navigating the TMSi Welcome Page



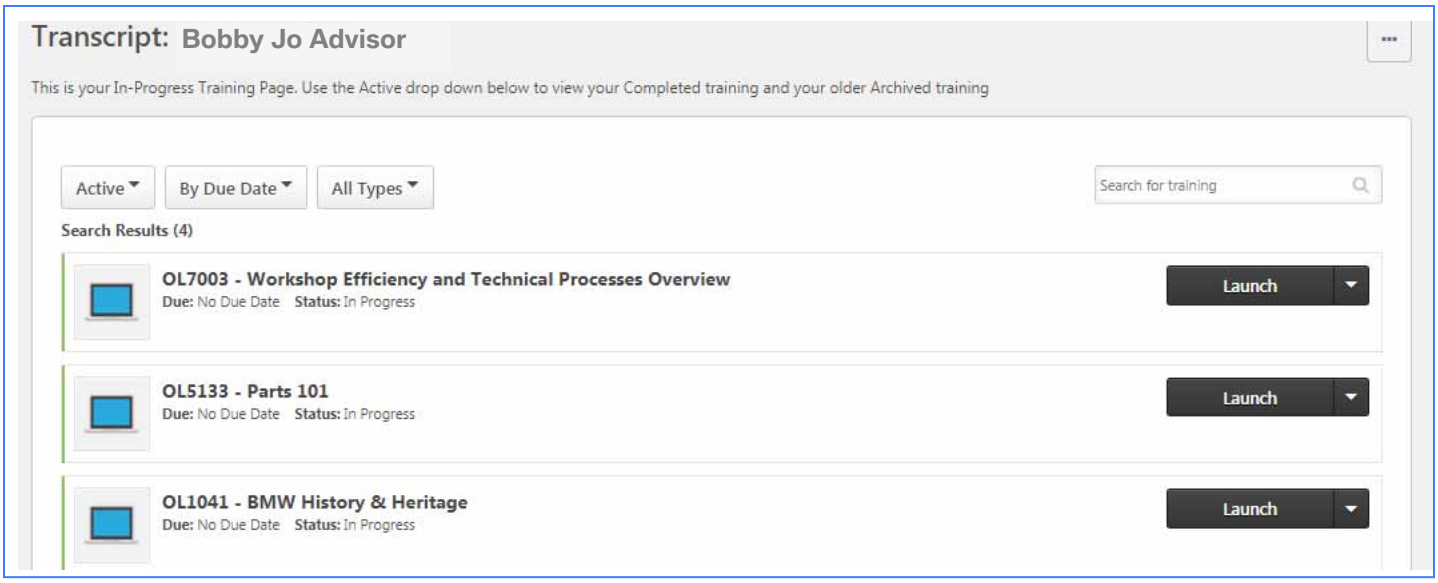
Located on the Universal Profile page, The Personal Bio will show any profile image that you have uploaded, the global distributor's location, and the user's job code. The **About** tab contains the user's phone numbers, email address, a User ID number, and a map showing the user's address-based location

It will also show any **Subjects of Interest.** In addition to the user's hire date from DEMS or RSDM, the **Additional Information** section will show who has been recorded as the user's **Manager** and **Training Approver**. While not essential that a manager be shown, any associate in a non-managerial role must have a training approver before they can enroll in any instructor-led training sessions.

Viewing the Training Transcript

The user's **Training Transcript,** can be viewed from the TMSi landing page or the Universal Profile page found in the Navigation menu. When you click on the link found on the TMSi landing page (Illustration 49, #3)., it launches the **Universal Profile** and shows the contents of the **Transcript** tab.

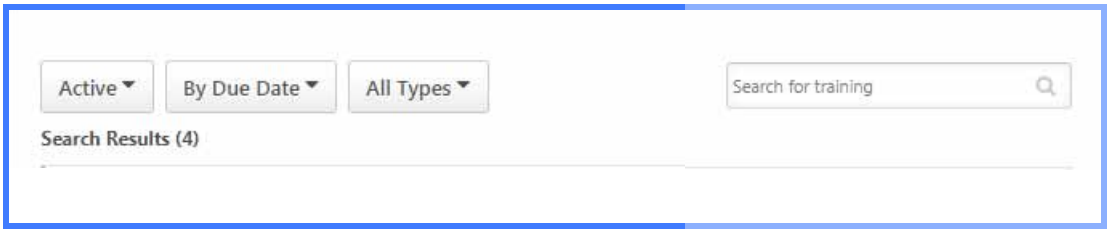
When the user's transcript is opened, it defaults to showing the BMW associate's **Active** training (first of three selectable tabs) which is their current "in progress" training together with the relevant status for each training item shown.



The **Active** tab contains a dropdown menu: where **Completed** and **Archived** training activities can be seen. By selecting either tab, the associate is also able to view any completed training as well as archived training activities. "Archived" training is defined as being either any training activity that is over two (2) years old, or training that the associate has moved to the Archive tab because it is no longer related to their current job code.

Users can also sort their transcript using the two other tabs that also contain dropdown menus (Illustration 50, below). Click on any tab to show the dropdown choices. If a user wants to see whether a class has been completed and the course code is known, the course title, or a keyword in the title are known, the Global Search bar can be used to find that course. Searches will be made using the displayed window, so if Active Training has been selected, the search will find course that are still active.

Illustration 50: Tab dropdowns and the Search Bar



My Upcoming Sessions

Any scheduled upcoming Instructor-Led sessions are visible in the **My Upcoming Sessions** section. This will list several of the upcoming sessions that a BMW associate is either already registered for or has requested but still requires approval.

This section will display sessions for which the BMW associate has submitted a request but which has not yet been approved (**Pending Approval** status). Should they see that a session is approaching and has not been approved yet, associates should bring it to their Manager's attention and contact their **Training Approver**. Pending Approval status does not mean the associate is registered, nor does it hold their place in any interested training sessions. The associate who has requested training will not be added to the class roster until their training session request has been approved internally.

The Events Calendar

The **Events Calendar** can be accessed from the TMSi landing page, Located in the **Upcoming Sessions** header, the Events Calendar will display all instructor-led sessions for your distributor. It is the most convenient way for a BMW CCRC associate to view all upcoming sessions since they can view a summary of all pertinent Instructor-led training sessions in one document instead of having to search for them individually.

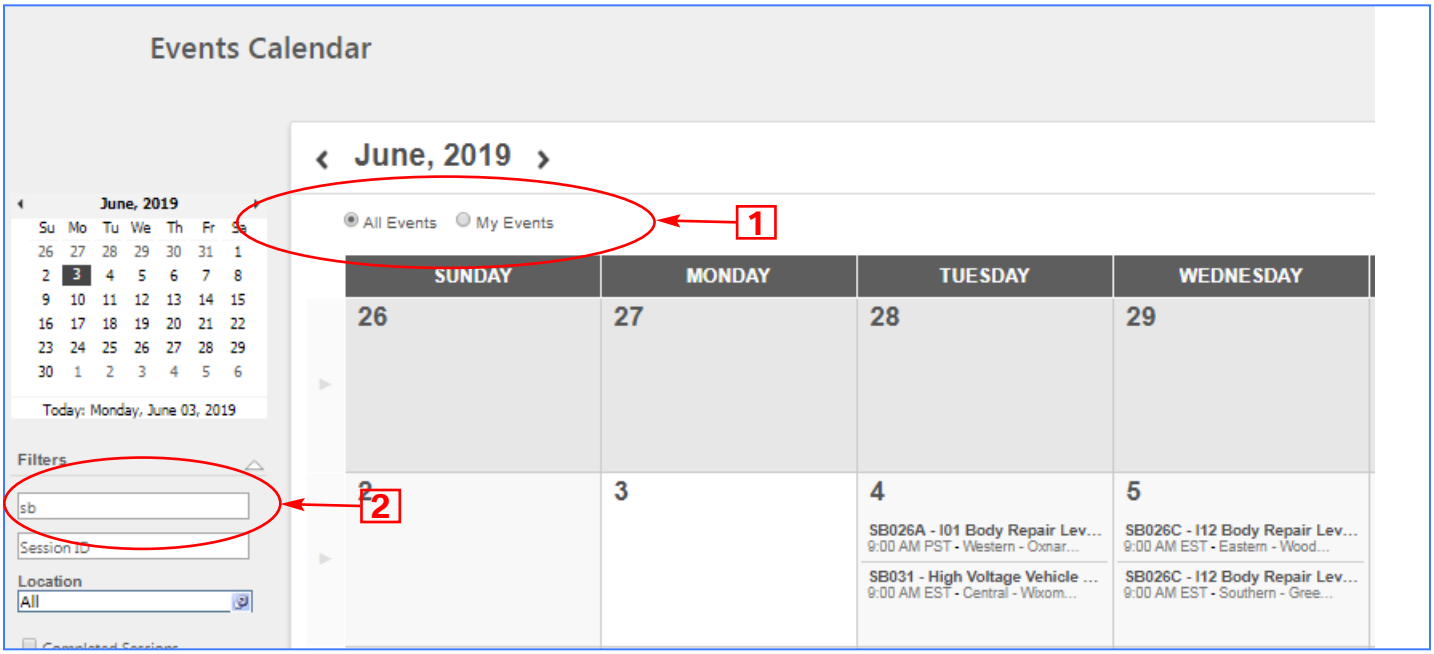
The **Events Calendar** defaults to all instructor-led sessions that are available to an associate based on their job title, job code, and brands.

The Events Calendar default displays a calendar-month view for the current month. Use the **<** or **>** **arrows** to navigate through the months of the year. Calendars can also be displayed by the **Day**, **Week**, **Month**, or in **Agenda** View. Sometimes known as a **List View**, the Agenda tab shows session information similar to how a daily planner would be organized.

There are several calendar navigation features that can be configured based on the associate's preferences.

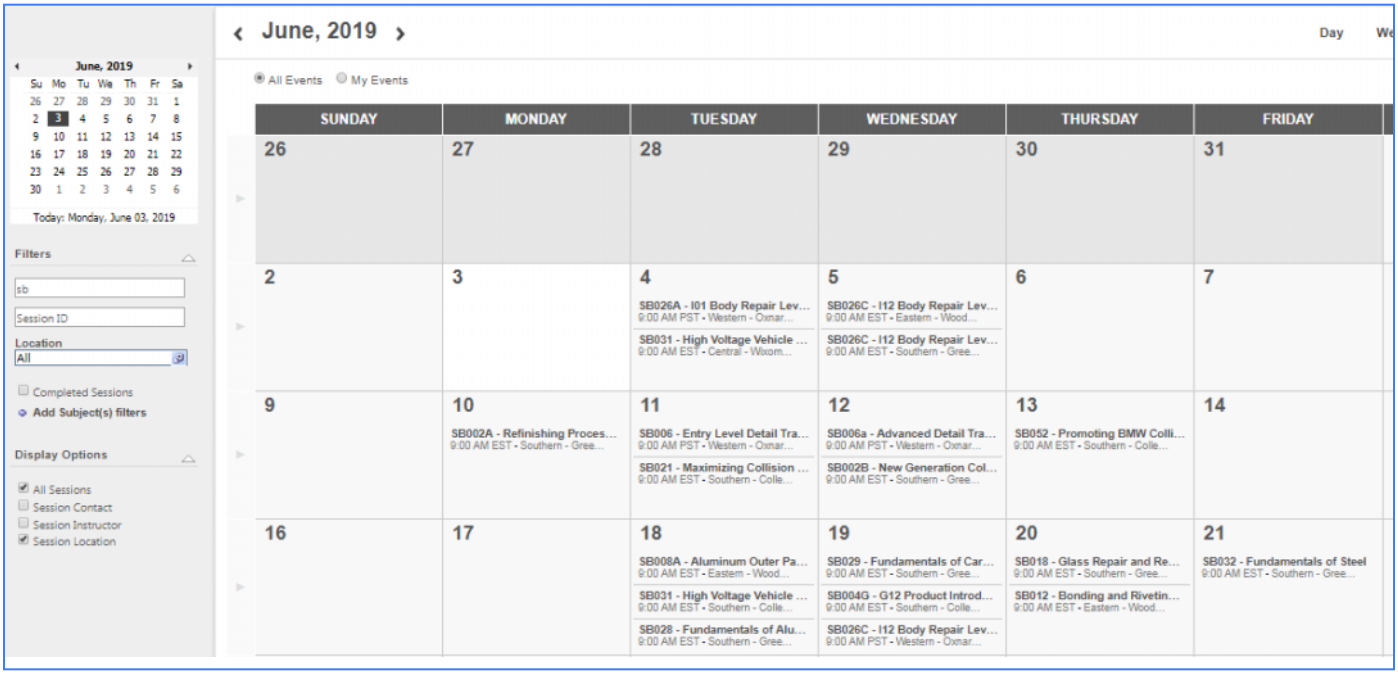
There are two selectable buttons in the **Calendar** view: **All Events** and **My Events** (Illustration 51 #1 below). The calendar defaults to showing **All Events** that fit an associate's job code. The associate can view just the events that they are currently registered by selecting **My Events.** on the calendar**.**

Illustration 51: Calendar view



Using Search Filters

While there are several filters that can be applied to the calendar to find a particular course, the easiest way to find all body and paint-related IL session is to filter using the **Title Bar.** In Illustration 56, the first two characters of all body/paint technical and non-technical training offered in the US ("SB") has been entered in the Title Bar. Enter the letters **SB** and then hit the **Enter** key. The resulting filter will display only courses starting with the letters "**SB"** (below).



Using the Search Bar to find a Session

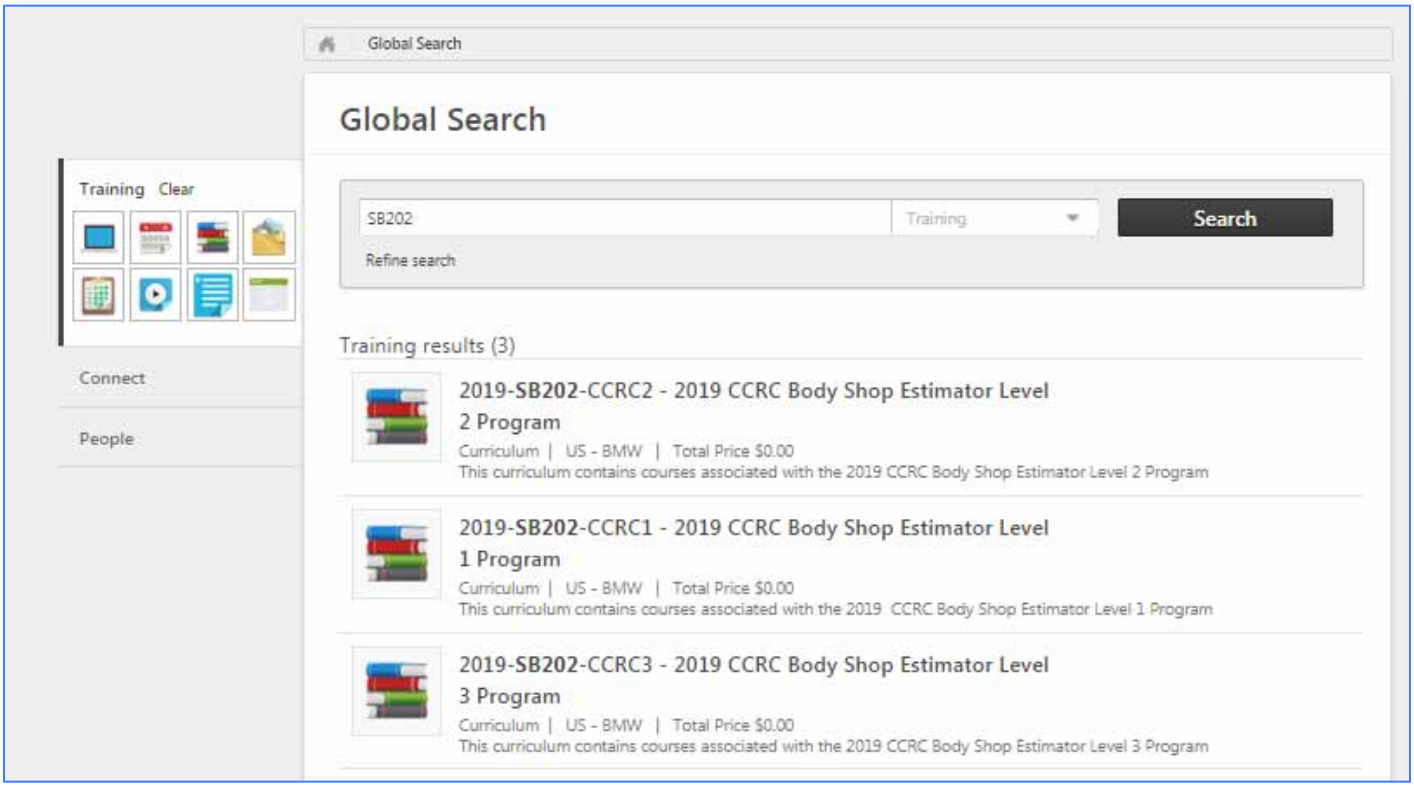
The Search Bar can be used to find a list of sessions if the course code or course title are known. In the top right corner of most TMSi web pages is the **Search Bar**. The Search Bar allows users to search for any training courses in TMSi that are available.

Users can start a search by typing in the:

- Course Code
- Course Title
- Subject/ Keyword
- Description
- Phrase in quotes (i.e. “Battery Maintenance”)
- Skill set (i.e. Problem Solving, Communication)
- Required Curriculums that do not apply to the user’s current job code/ job title
- Title of any Reference Material in the TMSi library

The Search feature is not case sensitive.

To identify any training requirements, the user can either view their transcript to view their current **Job-Code** based curriculum, or enter their Job Code in the Search Bar to view the training requirements for that job. Users can view their Personal Bio page to identify their Job Code. For example, the Job Code for a collision center estimator is SB202. If an estimator enters this job code int the Search Bar, it will provide them with their curriculum. The resulting search returns three different curriculum levels and the year that the curriculum became a requirement.

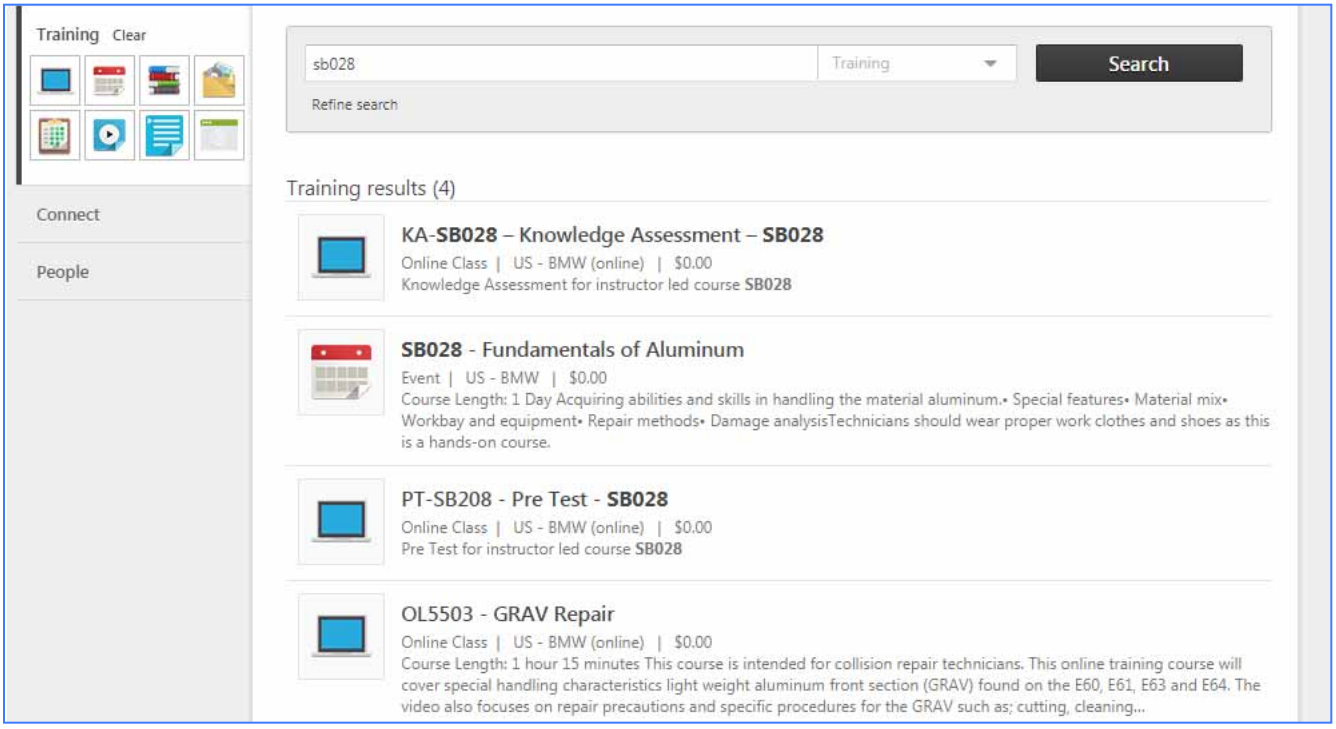


Curriculum Levels

Introduced in 2018, the three Training Levels are designed so that a new associate at a BMW Collision Center does not have to spend 30 days in training during their first year on the job. The Curriculum is spread over the three levels with the more advanced training taking place in Level 1. This makes attaining the required level of compliance with established training requirements a much simpler task for BMW Certified Collision Centers.

If a new estimator opens up the current Level 3 requirements, they will see that **SB025 - Online Resources**, **SB017 - Collision Advisor Training,** and **SB028 - Fundamentals of Aluminum**, are IL requirements. An estimator only needs to enter any of these course codes into the Search Bar to see a list of available sessions. Any course title that has references to the course code just entered including any prerequisites will also display.

As an example, if the user entered **SB028 - Fundamentals of Aluminum**, the search would yield the results shown in the illustration below.

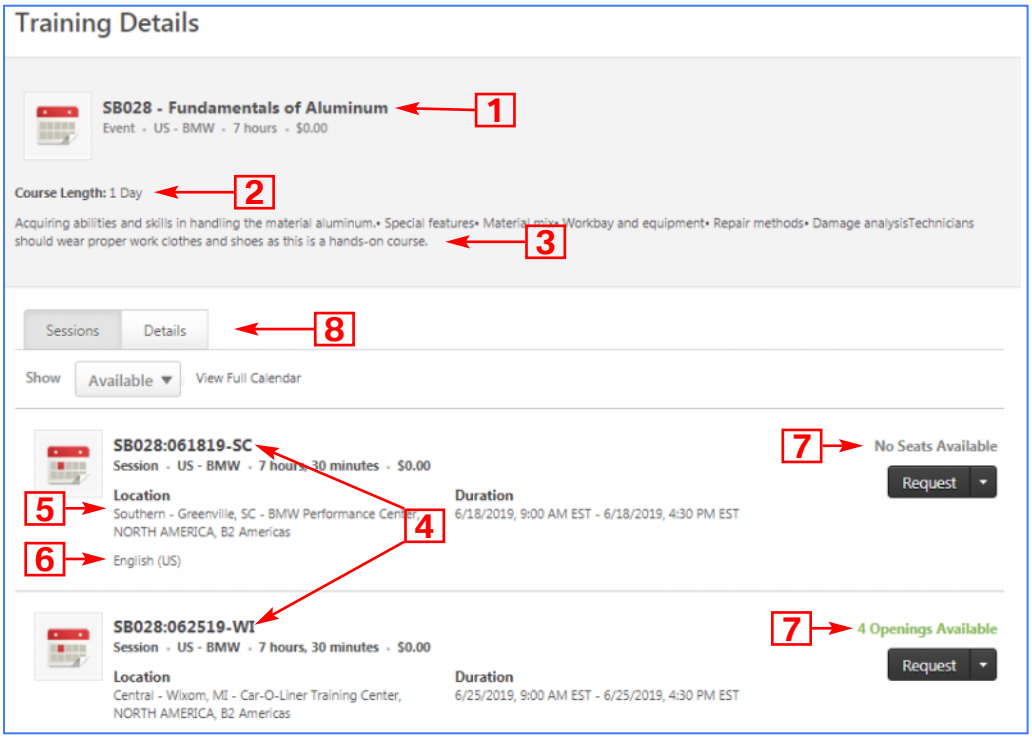


This class has three related titles which includes the pre-test and Knowledge Assesment for this course. Course SB028 is a prerequisite for OL5503 GRAV Repair, and is also displayed.

To find the list of individual sessions offered for this particular Instructor-Led course, click on the SB028 link and a list of scheduled classes starting from the system (current) date will populate (Illustration 52, next page). The **Sessions Tab** is the default view and shows the following Search results:

- Course Code and Course Title (1)
- Course Length (2)
- Course description (3)
- Session ID Code (4)
- Location (5)
- Language (6)
- Number of seats remaining (7)

Illustration 52: Displaying session information using the Search Bar



There were a total of nine sessions in the resulting search with dates through the end of the third quarter. BMWNA generally posts classes at least six months in advance. While additional sessions may be scheduled later in the year, it is always a best practice to attend training as early in the year as practicable to avoid CCRC compliance issues resulting from incomplete training.

Clicking on any of the Session ID Codes (4) will bring up more details about that particular **session**

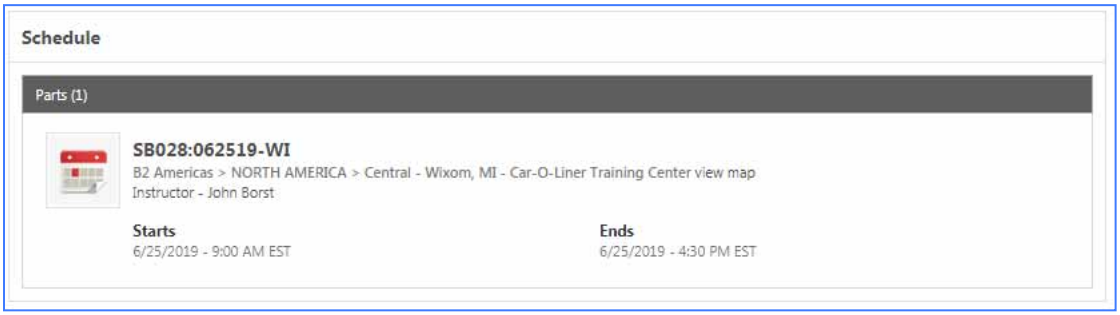
Course Details

The **Course Details** can be viewed for the Event or for a specific Session**.** An **Event** is the course whereby a **Session** is the unique date, time, and place that the Event will be held.

There is a **Details Tab** in the Search Results screen (#8, above). Clicking on this tab will show more information about the Event. Clicking on the Session ID Code, however, will display additional details about that particular session including:

- Registration Deadline
- Number of participants currently registered
- Maximum Registration for the session (or event)
- Training contact
- Penalty fees for Withdrawal or No Show
- Prerequisites and a link

The **Schedule** box at the bottom of the page (below) shows the class location with a link to view this location on a map, instructor name, and the start and end times and dates for this particular session.



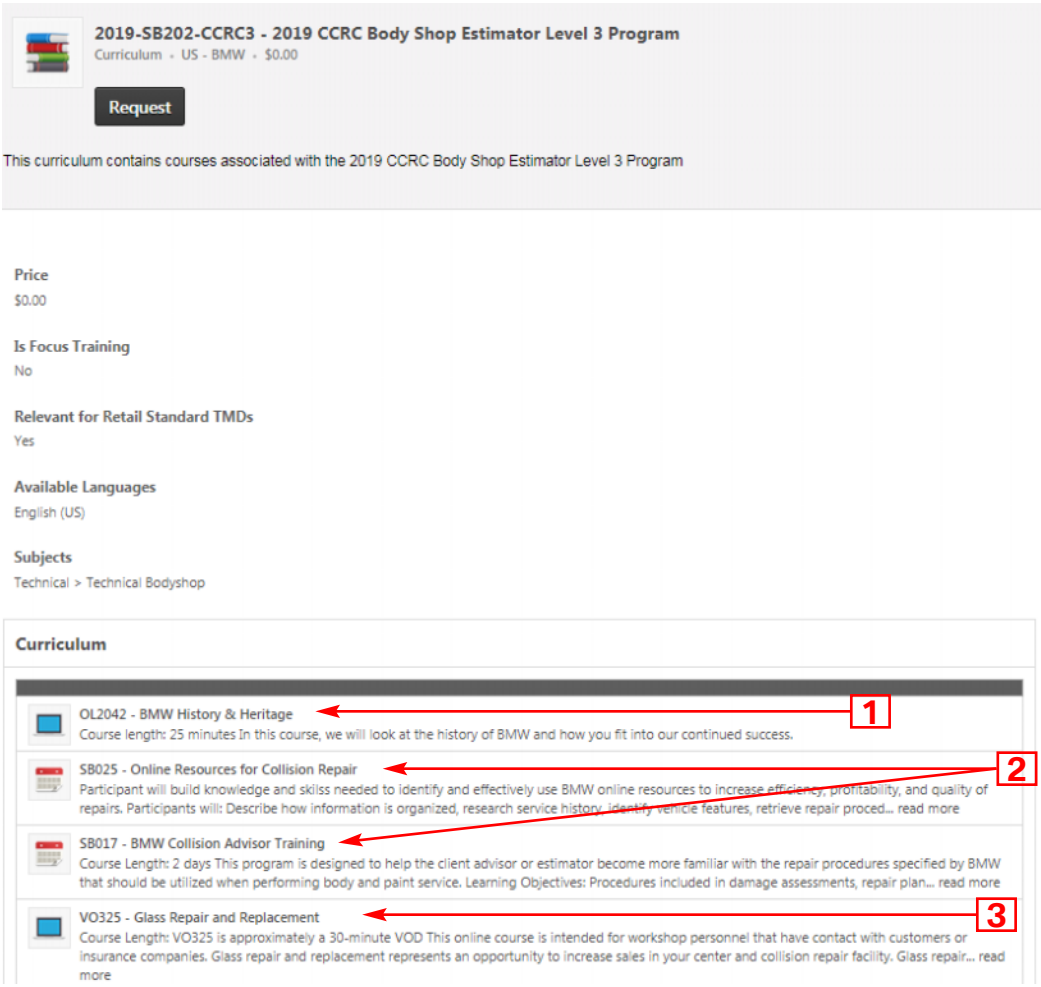
LOCATING AND ENROLLING IN A BMW TRAINING COURSE

Associates can identify training classes of interest several ways:

- Conduct a search from TMSi for courses of interest by **Name,** by **Keyword,** by **Course Code,** or by **Course Title**
- Reviewing their bundled learning requirements found in the **Curriculum** for a particular **Job Code**
- Identifying classes that have been assigned to them by their manager

Inside the Level-specific curriculum (Illustration 53, below), an associate can view all related courses within that group that are required to complete that Level of job-specific training.

Illustration 53: Example - SB202 Level 3 Curriculum



The user can see that there are three different types of training courses that need to be completed:

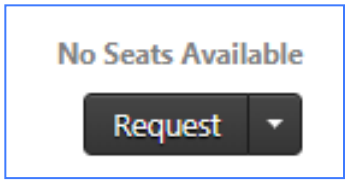
- Online Learning (1)
- Instructor Led (2)
- Video on Demand (3)

Clicking on any of the Course Codes or Course Names brings the user to the **Training Details** page. As previously covered, this page provides basic information about the course such as course length, a course description, learning objectives, target audience, credits earned, and any applicable course fees.

Online Learning and **Video on Demand** can be launched directly from this page.

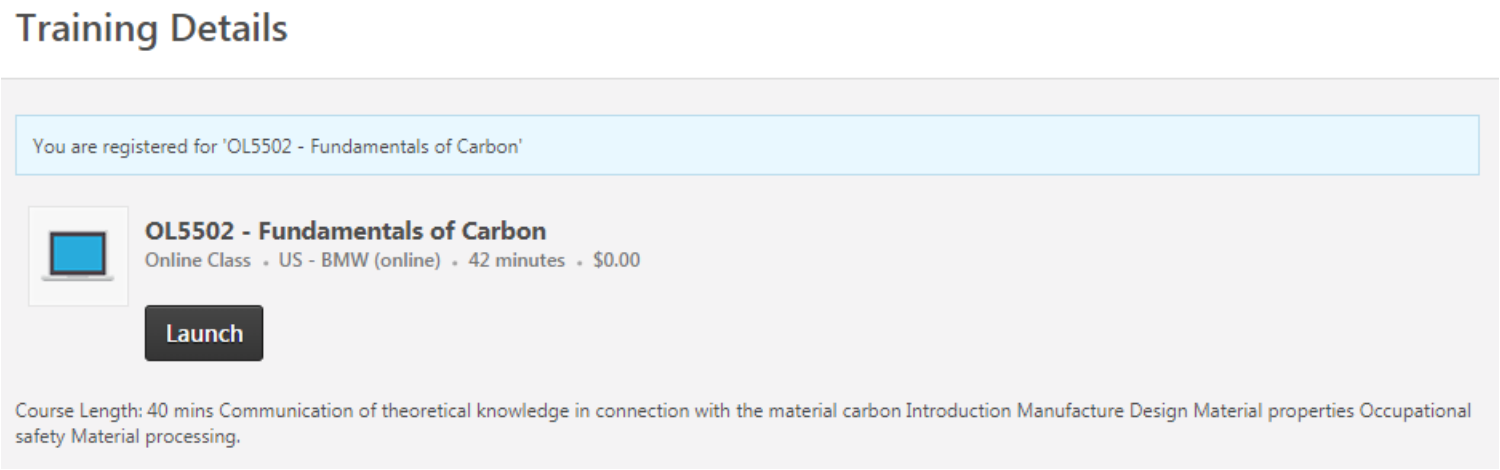
Clicking on the Course Code or Title for an instructor led course brings the user to a list of sessions. A participant can request any class that has available seating. For associates with managerial roles, they are automatically entered onto the class roster when the Request button is selected. For non-managerial staff, the request is forwarded to the associate's training approver. Once the request has been approved, these associates would be added to the class roster.

If the **Request** button appears next to a class with **No Seats Available** (Illustration, right), clicking on it **will not add** the participant to any type of waitlist; the request to be added will be denied.



Launching Online Training

If an Online Learning course or a Video on Demand is selected, the user can immediately launch the program. Once the program starts, a control menu will be displayed at the bottom of the viewer screen. Most Online Learning programs will allow users to exit at any time and resume at a later date. Note that if a module is not completed on an Online Learning class and the user exits, when they resume, the user will be asked if they want to resume or if they want to start from the beginning. If the OL session is resumed, it takes the user back to the beginning of the module that was exited.

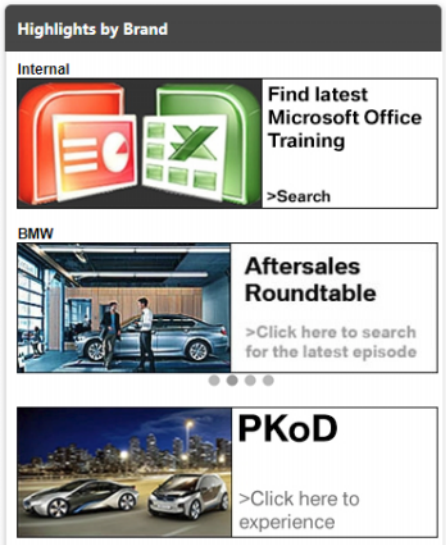


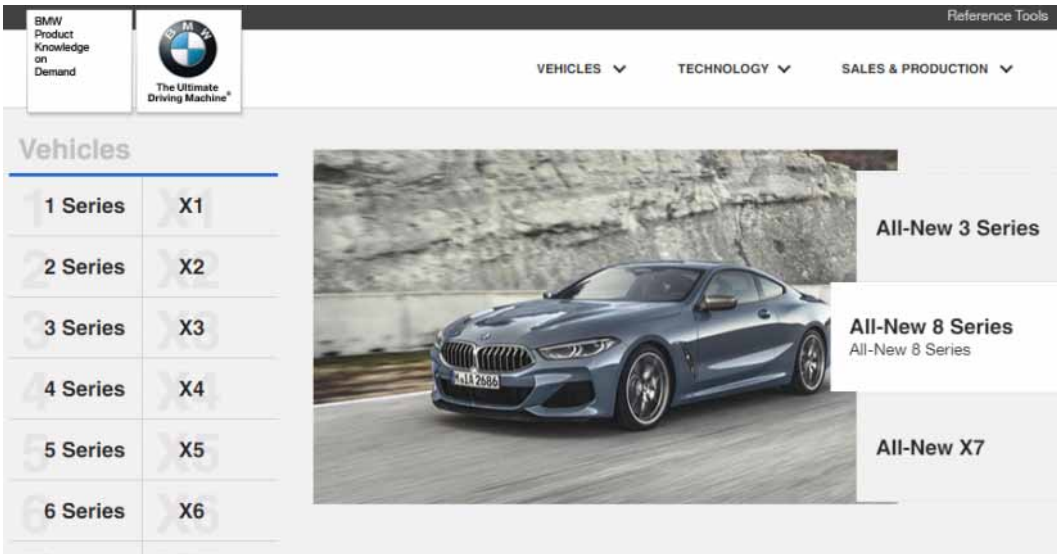
Most OL sessions require the user to complete an assessment at the end of the session to receive credit. Most assessments have a passing score of 80%, and some require a 100% score.

A new feature with OL sessions is earning **Bonus Points** by answering questions in several module quizzes. If the user answers all the quizzes correctly, the final assessment may be waived.

PKoD

PKoD stands for **Product Knowledge on Demand** and it is a collection of product information where users can find vehicle, technology and sales & production information. Used by the sales department when specifying option packages when ordering vehicles, PKoD provides advisors with lists of individual options as well as those found in certain **Option Packages**. PKoD can be launched from a graphical link on the TMSi Home Page.

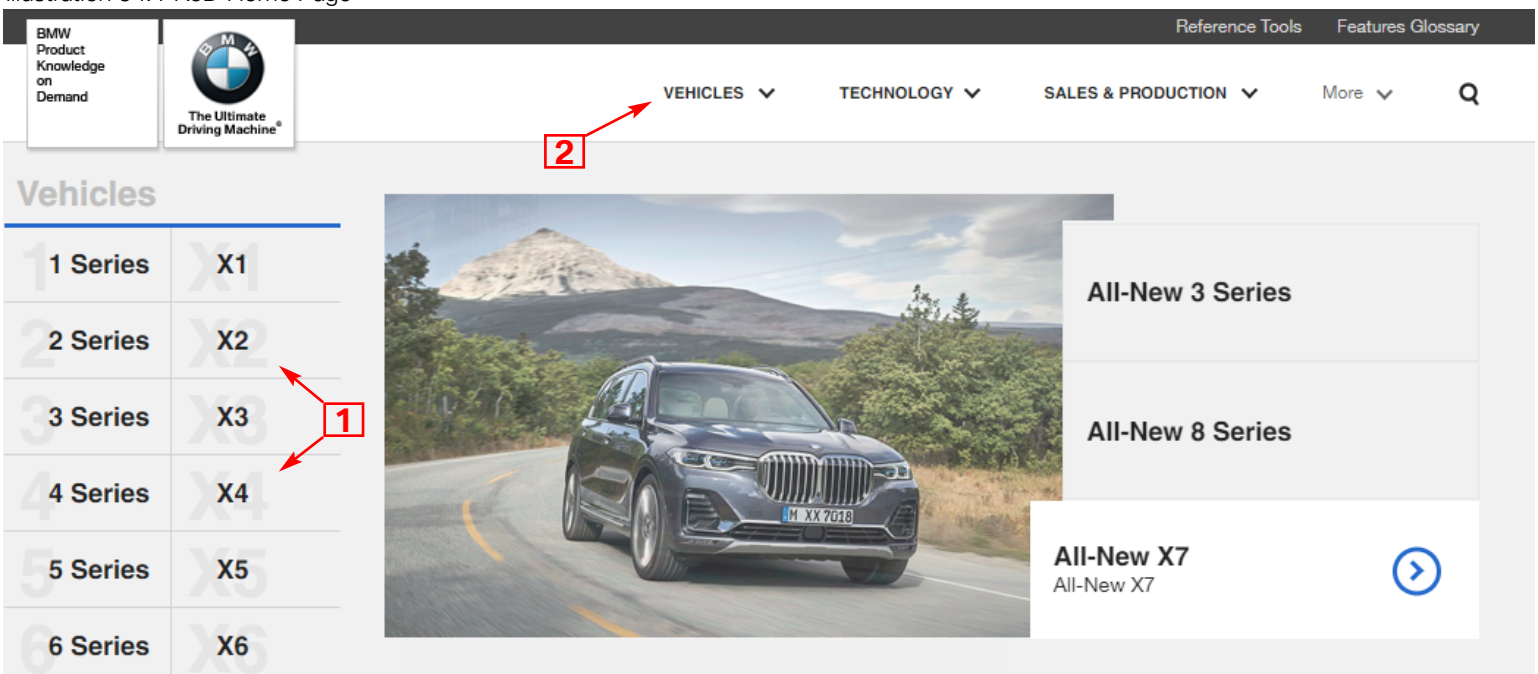




Using PKoD

Most collision advisors will find the **Vehicles** section beneficial when identifying optional equipment found on BMW Models. This can be accessed by clicking on a vehicle icon to the left of the screen (Illustration 54, #1), or by selecting the **Vehicles** dropdown at the top of most PKoD pages (#2)

Illustration 54: PKoD Home Page



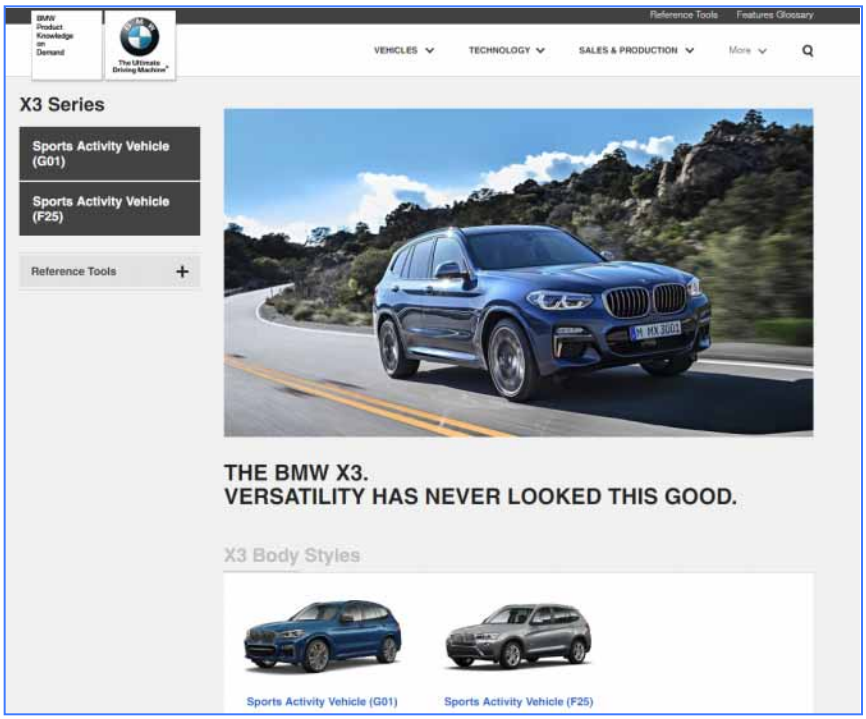
When a vehicle has been selected, users will see the designation codes for the models found in PKoD. In the following example, an X3 has been selected. Illustration 55 shows that at the time that PKoD was accessed, there were two platforms that contain vehicle data: the G01 and the F25. Once the platform has been selected, the user can select the year of the vehicle being researched. The **Reference Tools** (left column) can be used to identify standard features, available options, and the content of option **packages.**

PKoD Reference Applications

There are many tools listed in this section. The resource that collision advisors find beneficial for identifying the contents of options packages called out on the Vehicle page in TMSi or the Options page in ETK is the **Ordering Guide.** This document will help collision advisors identify different options as well as the contents of option packages such as 5AS (Driver Assistance Package) and 5AT (Driver Assistance Plus).

Repair procedures will vary based on option content of a vehicle, especially for vehicles equipped with Driver Assistance systems that intervene in vehicle operation such as performing evasive maneuvers or applying the brakes.

Illustration 55: Vehicle Selection



The Ordering Guide will load as a PDF file. The Ordering Guide for the 2018 X3 contains information about the X3 xDrive 30i as well as the X3 M40i. It shows the Standard Equipment (Illustration 56, below), available Exterior Colors, and Interior Upholsteries The document shows codes for standard equipment as well as stand-alone options and codes for option packages. The Ordering Guide shows that there are five Option Packages available for this vehicle (Illustration 57, page 81):

- Driving Assistance Package
- Driving Assistance Plus Package
- Parking Assistance Package
- Premium Package
- Executive Package

There are several rule sets that need to be followed when ordering a vehicle. Since the advisor is researching a production vehicle, this additional information is not needed.

Illustration 56: Ordering Guide - Standard Equipment 2018 X3 M40i

BMW of North America, LLC

Ordering Guide
Model Year 2018
SOP: 08/17

X3 (G01)
Effective January 1, 2018

X3 M40i 18XE TS33

Standard

1CA CO2 relevant vehicles
1MA M Sport exhaust system
22S 19" M Double-spoke bi-color wheels, style 698M w/performance run-flat tires (style 698M)
255 Sport leather steering wheel
258 Runflat tires
2NH M Sport Brakes
2TB Sport Automatic Transmission
2VB Tire pressure monitor
2VG Performance Control
2VL Variable sport steering
302 Alarm System
316 Power tailgate
319 Universal garage-door opener
322 Comfort Access keyless entry
337 M Sport Package
3AG Rear view camera
3DZ Without Lines designation outside
3MC High-gloss Roof Rails
402 Panoramic moonroof
420 Privacy glass
423 Floor mats
430 Auto-dimming interior and exterior mirrors
431 Auto-dimming rearview mirror
459 Power Front Seats
461 Rear seat back adjustment
465 Split fold-down-rear seat
481 Sport seats
488 Lumbar support
493 Storage package
4AW SensaTec Dashboard
4K7 Aluminum Rhombicle Interior Trim
508 Park Distance Control
534 Automatic climate control
552 Icon Adaptive Full LED Headlights
5A1 LED Fog Lights
5AC Automatic high beams
5AL Active Protection
645 Radio control US
650 In-dash CD player
655 SiriusXM Satellite Radio with 1year All Access Subscription
676 Hi-fi sound system
697 DVD Area coding (North America)
6AC BMW Assist eCall
6AE BMW TeleServices
6AK ConnectedDrive Services
6NH Hands-free Bluetooth and USB audio connection
704 M sport suspension
715 Aerodynamic kit
760 Shadowline exterior trim
775 Anthracite headliner
840 Increased top speed limiter
8KL Oil Chg 10,000 mls/12 months
8SL Trailer hitch prewiring
8TN Daytime driving lights
ZTM Tier 2

Exterior Colors

Non-Metallic (STD)
300 Alpine White

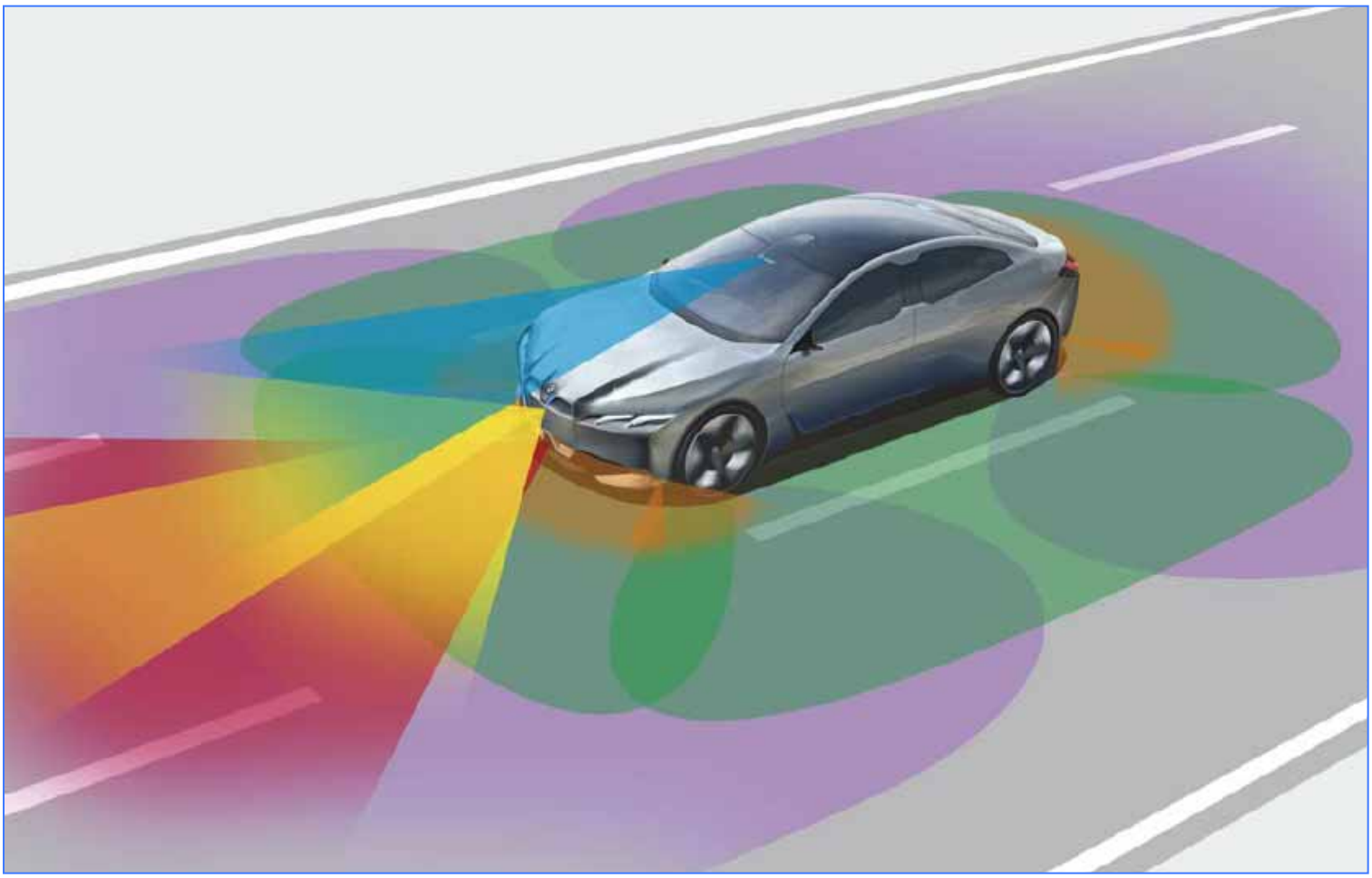
Metallic
416 Carbon Black Metallic
475 Black Sapphire Metallic
A83 Glacier Silver Metallic
A90 Dark Graphite Metallic
C1M Phytonic Blue Metallic

Interior Upholsteries

SensaTec (STD)
K8FY Canberra Beige/Black SensaTec
K8SW Black SensaTec

Vernasca Leather
MAFO Canberra Beige/Black Vernasca Leather w/contrast stitching/piping
MAH7 Black Vernasca Leather w/contrast stitch/piping
MAMU Mocha Vernasca Leather w/contrast stitching/piping
MANL Black Vernasca Leather w/blue contrast stitching/piping
MAOQ Oyster Vernasca Leather w/contrast stitching/piping
MAPQ Cognac Vernasca Leather w/contrast stitching/piping

Several of the Driver Assistance sensors are located behind body panels, body trim items, or behind the windscreen. There are specific repair requirements fo service to these outer body panels and for glass replacement if the vehicle is equipped with certain Driver Assistance Systems. Always consult AIR and PKoD for repair instructions and guidance.



Using the Ordering Guide

Once the advisor navigates to TMSi and opens the PKoD application, the vehicle family needs to be selected. For this example we will use a 2018 X3 M40i. Here are the steps:

1 Navigate to **TMSi**

2 Launch **PKoD**

3 Select the **vehicle** from the **left margin** or by using the **Vehicles** dropdown menu.

4 Choose the appropriate **Platform Code**

5 If necessary, change the **year** to match the vehicle being researched

6 Click on the **Plus Sign (+)** next to the **Reference Tools** flag

7 Select the **Ordering Guide**

8 Confirm the series

9 Select the appropriate **Ordering Guide**

Illustration 57: Option Packages 2018 X3 M40i

Packages

ZCV	**Convenience Package**	
322	Comfort Access keyless entry	
402	Panoramic moonroof	
488	Lumbar support	
5A4	LED Headlights with Cornering Lights	
655	SiriusXM Satellite Radio with 1year All Access Subscription PLEASE NOTE: when ordered with optional 3AC Trailer Hitch, the Smart Opener feature for the tailgate ("kick-to-open") is deleted.	
ZDA	**Driving Assistance Package**	
5AS	Active Driving Assistant	
or	ZDB - Driving Assistance Plus Package	
ZN1	Active Blind Spot Detection	
ZN4	Lane Departure Warning Active Driving Assistant additionally includes Daytime Pedestrian Protection, Frontal Collision Warning w/City Collision Mitigation, & Cross-traffic alert rear. For vehicles equipped with Navigation, Speed Limit Info is additionally included.	
ZDB	**Driving Assistance Plus Package**	
5AT	Active Driving Assistant Plus Active Driving Assistant Plus includes Active Cruise Control w/Stop & Go, Active Lane Keeping Assistant w/ side collision avoidance, Traffic Jam Assistant, Evasion Aid, & Cross-traffic alert front, in addition to the contents of Active Driving Assistant.	
ZDH	**Dynamic Handling Package**	
223	Dynamic Damper Control	
2NH	M Sport Brakes	
2VG	Performance Control	
2VL	Variable sport steering	*(EOP:11/17)*
ZMP	**M Sport Package**	
225	Standard suspension	
or	223 - Dynamic Damper Control	
or	ZDH - Dynamic Handling Package	
22U	19" M Double-spoke bi-color wheels, style 698M w/all-season run-flat tires	*(style 698M)*
or	22S - 19" M Double-spoke bi-color wheels, style 698M w/performance run-flat tires	
or	22W - 20" M Double-spoke bi-color wheels, style 699M w/performance run-flat tires	
255	Sport leather steering wheel	
322	Comfort Access keyless entry	
337	M Sport Package	
3MC	High-gloss Roof Rails	
or	3AT - Roof rails in Satin Aluminum	
402	Panoramic moonroof	
or	ZDM - Moonroof deletion	
488	Lumbar support	
4AW	SensaTec Dashboard	
or	ZOD - Remove SensaTec Dashboard	
4K7	Aluminum Rhombicle Interior Trim	
or	4K9 - Aluminum Interior Trim	
or	4LH - Fineline Cove Matte Finish Wood Trim	
or	4LQ - Gray Poplar Wood Trim	
5A4	LED Headlights with Cornering Lights	
655	SiriusXM Satellite Radio with 1year All Access Subscription	
715	Aerodynamic kit	
760	Shadowline exterior trim	
ZPK	**Parking Assistance Package**	
5DN	Parking Assistant Plus	
ZX1	Active Park Distance Control	
ZX3	Surround View w/ 3D View	
ZPL	**Luxury Package**	
4AW	SensaTec Dashboard	
4UR	Ambient Lighting	
7S2	Luxury Line	
MA	Vernasca Leather	
ZPP	**Premium Package**	
248	Heated Steering Wheel	
25Y	19" V-spoke bi-color ferric grey wheels,style 692 with all-season run-flat tires	*(style 692)*
or	25X - 19" V-spoke bi-color ferric grey wheels,style 692 with all-season non rft tires	
494	Heated front seats	
or	4HA - Front and Rear Heated Seats	
609	Navigation system	
610	Head-up Display	
6AM	Advanced Real-Time Traffic Information	
6AP	Remote Services	
ZPX	**Executive Package**	
552	Icon Adaptive Full LED Headlights	
5AC	Automatic high beams	
5DN	Parking Assistant Plus	
6U8	Gesture Control	
6WB	12.3" Dynamic Digital Instrument Cluster	
ZX1	Active Park Distance Control	
ZX3	Surround View w/ 3D View	
MA	Vernasca Leather	

The Reference Tools also contain other resources. Many are aimed at the BMW sales department. The only additional Reference Tool that a collision advisor may find helpful is the **Technical Data** sheet.

The **Owner's Manual** section may not have the most current range of vehicles. These manuals are available on the BMW USA website at

https://www.bmwusa.com/owners-manuals.html

The user just needs to enter the VIN and the most current version of the Owner's Manual can be viewed. This provides additional service recommendations for the owner.

SUMMARY

- BMW provides a wide variety of online training programs that can be accessed on demand by BMW Center associates.
- Associates should review the **My Bio** section on the **Welcome** page to ensure that they have an assigned Manager and Training Approver. If not, they should contact the dealer's training administrator, DEMS administrator or their business manager.
- Course completion records can be reviewed online by BMW associates in TMSi and are found in the participant's **Training Transcript**. This is a secure site that can only be accessed by the participant or their management team.
- BMW Certified Collision Repair Centers have specific training requirements that must be maintained. These requirements change annually as new training programs are added. The current guidelines can be found in their job code-specific training **Curriculum**
- Managers may assign training to BMW Center associates that must be completed by dates specified by the manager.
- Understand the difference between **Registered** and **Pending Approval** registration status and how this affects Registration. Once **Registered** shows, the registration process is complete; **Pending Approval** will not hold a place for the associate in the requested session.
- Many courses have enrollment limits. The **Course Catalog** will identify the total number of seats available and the number of seats that are left (seats remaining).
- Do not use the **Request** button if the class of interest shows that there are no seats available. Your name will not be added to a waitlist and the request will be automatically denied.

APPENDIX A: TO GET THERE - US USERS

CenterNet - To Get There

1 Launch BMW CenterNet: go to https://www.dealerspeed.net

2 Enter a valid UserID (User name) and Password. Both fields are case sensitive.

3 Select **CenterNet**

DCSnet - To Get There From CenterNet

1 Launch BMW CenterNet: go to https://www.bmwcenternet.com/

2 Enter a valid UserID (User name) and Password. Both fields are case sensitive.

3 Select **DCSNet (New)** from the Menu Bar.

DCSnet - To Get There Directly from DealerSpeed Login

1 Launch BMW CenterNet: go to https://www.dealerspeed.net

2 Enter a valid UserID (User name) and Password. Both fields are case sensitive.

3 Select **DCSNet (New)**.

The Flat Rate Guide (AIR):

1 Launch BMW DealerSpeed: go to https://www.dealerspeed.net and enter a valid Username and Password

2 Navigate to **DCSnet**

3 Click on the **Service** menu button (top)

4 Select the **Aftersales Information Research** submenu item

5 Enter a valid vehicle serial number

6 When AIR launches, select the **Flat Rate Units** menu button

Talent Management System International (TMSi) - To Get There

To navigate to **TMSi,** users first need to log into DealerSpeed.

1 From the **DealerSpeed** login landing page, select **DCSnet (New)**.

2 Navigate to TMSi by selecting the link to the **TMSi Training System** that appears in the left-hand margin of the **DCSnet** home page.

3 When TMSi opens, the user's **Welcome Page** will be displayed.

ETK* - To Get There

To navigate to the **Electronic Parts Catalog (ETK)**, users first need to log into DealerSpeed.

1. From the DealerSpeed login landing page, select **DCSnet (New)**
2. Below the heading labeled **Parts** in the left-hand margin, click on **ETK**

Individual Vehicle Data* - To Get There

1. Navigate to the **Electronic Parts Catalog (ETK)**
2. Select **Components of Vehicle**
3. Enter the last seven digits in the box labeled **VIN**
4. When the Vehicle Information loads, click on the **Information Icon**
5. When the **Vehicle Information** window loads, check to see if **Individual Data** is present
6. If there is Individual Data, click on the **Options** tab and scroll down to the section labeled **Individual Data**

Model Map* - To Get There

1. Once logged into DealerSpeed, launch **DCSnet**
2. In the left-hand margin, select **TIS BMW**
3. Launch the **Model Map** (upper right-hand corner)

Training Manuals*-To Get There

1. Once logged into DealerSpeed, launch **DCSnet**
2. In the left-hand margin, select **TIS BMW**
3. In the Menu Bar, select **Training**
   - Select **Body & Paint** for B/P Training Reference Guides
   - Select **Service** to find **Complete Vehicle Manuals** as well as publications covering technical topics

***These applications require additional DealerSpeed access rights - contact the center's DEMS administrator to request the required permissions needed to use these applications.**

APPENDIX B: TO GET THERE - CANADIAN USERS

S-GATE - To Get There

1 Internet: Go to the B2D portal at **https://sgate.bmwgroup.com/ca**

2 From within a BMW Corporate network: **https://sgate.bmwgroup.net/ca**

3 Enter a valid UserID (Username) and Password. Both fields are case sensitive.

4 Select the **Language** you prefer from the **Dropdown List.**

The Flat Rate Guide (AIR): To Get There

1 Enter the S-GATE Dealer Portal at **https://sgate.bmwgroup.com/ca** and enter a valid **User Name** and **Password.**

2 At the top of the page, click the **Aftersales** link

3 In the left-hand margin, select **AIR - Aftersales Information Research**

4 Enter a valid vehicle serial number

5 When AIR launches, select the **Flat Rate Units** menu button

TMSi- To Get There

Canadian users for both BMW and MINI brands will access the TMSi training system by first logging into the **S-GATE** portal.

1 Enter the S-GATE Dealer Portal at **https://sgate.bmwgroup.com** and enter a valid **User Name** and **Password**.

2 At the top of the page, click the **Aftersales** link. Any accessible links will appear in the left-hand margin.

3 In the left-hand margin, select **TMSi**.

ETK* - To Get There

To navigate to the **Electronic Parts Catalog (ETK)**, users first need to log into **S-GATE**.

4 At the top of the page, click the **Aftersales** link. Any accessible links will appear in the left-hand margin.

5 In the left-hand margin, select **ETK.**

Individual Vehicle Data* - To Get There

1 Navigate to the **Electronic Parts Catalog (ETK)**

2 Select **Components of Vehicle**

3 Enter the last seven digits in the box labeled **VIN**

4 When the Vehicle Information loads, click on the **Information Icon**

5 When the **Vehicle Information** window loads, check to see if **Individual Data** is present

6 If there is Individual Data, click on the **Options** tab and scroll down to the section labeled **Individual Data**

***These applications require additional S-GATE access rights - contact the center's RSDM administrator to request the required permissions needed to use these applications.**