

MRC TECHNICAL eBULLETIN

RAISING STANDARDS FOR THE AUTOMOTIVE INDUSTRY

NEWLY
LAUNCHED CARS

MRC MALAYSIA
IN BRIEF 2022



“ MRC has a smart solution for every IT challenge ”

Contact Us

Thank you for reading the Issue #03/2022/006 MRC Technical eBulletin. If you have any questions regarding the content, or suggestion for improvement, please contact MRC Malaysia via

INTRODUCTION



Steve Miller
Chief Executive Officer
MRC Malaysia

We bring insight into new vehicles recently launched in Malaysia, along with information regarding the recall of various Honda vehicles for inactive ADAS camera and rectification of incomplete welding at the slide adjuster of driver's seat. In addition, the information on ASEAN NCAP vehicle safety test and overall rating for Honda HR-V 2022 is also included.

Furthermore, in this edition, we would like to share briefly our achievements and activities throughout the year of 2022. I would like to express our gratitude for your unwavering trust in our company and your contributions to the industry, and thank you for all your undivided support to MRC Malaysia.

In this festive season, I would like to take this opportunity to wish you "Merry Christmas and Happy New Year". May this season be full of light and happiness for you and your family. All the best 2023. Happy New Year!



NEWLY LAUNCHED CARS

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NEWLY LAUNCHED CARS



BMW X4 G02 2022 Facelift launched

BMW Malaysia has now officially launched the 2022 G02 BMW X4 facelift for the Malaysian market. This facelifted model is locally assembled (CKD) in Kulim, Kedah and priced at RM398,800 on-the-road without insurance, inclusive of the sales and service tax (SST) exemption with a five-year unlimited-mileage warranty.

The X4 comes with a 2.0 litre turbocharged inline 4-cylinder petrol engine that produced 252 hp from 5,200 rpm to 6,500 rpm and 350 Nm of torque from 1,450 rpm to 4,800 rpm. This engine sends a drive to the xDrive intelligent all-wheel-drive system via a Steptronic 8-speed automatic gearbox.

Inside the cockpit, it is equipped with the 12.3-inch digital instrument display including the BMW Live Cockpit Professional setup. The X4 comes with BMW Operating System 7 and BMW Intelligent Personal Assistant that allow users to open windows and adjust the vehicle air conditioning system through voice commands. In addition, it is also equipped with the new cloud-based BMW Maps navigation system, which is more precise and combines simplified destination entry points with more comprehensive traffic updates.

For the advanced driving assistance system in this vehicle, it is fitted with a lane change warning, lane departure warning and front collision warning with brake intervention (AEB). This vehicle is also fitted with Dynamic Stability Control (DSC), Dynamic Traction Control (DTC), Cornering Brake Control (CBC) and Antilock Braking System (ABS). Parking assistance as well as reversing assistance are offered.

“The Passionate Pursuit
of Perfection”

Specification

	BMW X4 xDrive30i M Sport
Retail Price	RM398,800
Horsepower (HP)	252
Engine	2.0 litre turbocharged four-cylinder engine
Length*Width*Height (mm)	4,752*1,918*1,621
Transmission	8-Speed AT
Fuel Economy	7.8l/100km

NEWLY LAUNCHED CARS



“ Designed to improve your performance ”



Mazda MX-30 EV 2022 launched

Bermaz Motor has introduced the all-electric 5-seater crossover, MX-30 EV for the Malaysian market. There are two models which are MX-30 EV Mid and MX-30 EV High with different features offered. The price for the fully imported CBU MX-30 EV High is RM198,780 that comes with a cross over body shape with a futuristic elegant design.

Both models come with an electric motor that developed 145 PS and 271 Nm of torque and drives front wheels through a single-speed transmission. The motor is powered by a 35.5 kWh and mounted with a 355 volt lithium-ion battery located under the vehicle floor. The maximum operating range is approximately 199 km on a full charge with a performance of 0-100 km/h within 9.7 seconds, while the maximum speed can be reached at 140 km/h.

The Mazda MX-30 uses the Combined Charging System (CCS) as a standard, which consists of a combination of AC and DC Charging ports. The top section is fitted with AC Type 2 charging port with a slow and fast charging function, which allows a charging rate of up to 6.6kW. It will take five hours to be fully charged at the maximum rate. Meanwhile, for the slow charging, it will take 12 hours to be fully charged with a maximum rate of 3kW through the normal power and for DC fast charging (CCS2 port), it will take 36 minutes from zero to 80% at a maximum rate of 40kW.

The MX-30 Mid model comes with adaptive front lighting (AFS) and high beam control, while the MX-30 High model gets an adaptive LED headlight (ALH) system. Additionally, the MX-30 High adds on front cross traffic alert (FCTA) as well as a cruising and traffic support (CTS) feature.

For safety features, all models get seven airbags, ABS with EBD and brake assist, dynamic stability control (DSC), traction control, hill launch assist and rear ISOFIX child seat anchors. All variants also come with i-Activ sense suite for driver assistance system. The system includes Smart Brake Support (AEB front and rear), Mazda Radar Cruise Control with Stop and Go functionality, Blind Spot Monitoring (BSM) with Rear Cross-Traffic Alert (RCTA), Lane Departure Warning System (LDW), Driver Attention Alert (DAA) with Driver Monitoring and Lane Keeping Assist System (LKA) as standard.

Specification

	Mazda MX-30 EV Mid	Mazda MX-30 EV High
Retail Price	To Be Confirmed	RM198,780
Horsepower (PS)	145	145
Motor	35.5 kWh, 355 volt lithium-ion battery	35.5 kWh, 355 volt lithium-ion battery
Length*Width*Height (mm)	4,395*1,795*1,555	4,395*1,795*1,555
Transmission	Single-speed transmission	Single-speed transmission
Operating Range	199km	199km

RECALLS



Honda Malaysia Recalls Various Models

Honda Malaysia (HMSB) has announced product recalls involving 630 units of Honda City Hybrid RS e:HEV 2021 and 72 units of Honda Civic FE 2022. According to HMSB, the recall for Honda City Hybrid is because of an inactive ADAS camera. The front screen camera for the Honda Sensing features may not operate properly and cause ADAS to be inactive when driving.

Meanwhile for the Honda Civic FE, the recall is for precautionary safety measure to rectify the incomplete welding at the slide adjuster of the driver's seat. This may cause the seat not fixed in position when driving and may compromise seatbelt protection for the driver. However, to date, there was no report of any incidence or injury caused involving these models in Malaysia.







HMSB said, these product recalls will continue to uphold transparency and stringent controls for their customers. They also reassures that other current production and selling models are not affected in these product recalls. All affected customers will be informed through letters inclusive of the recall details. HMSB urged all affected users to contact their preferred Honda dealership to make an appointment upon receipt of notifications. Inspection, any repairs and replacement of the affected parts are free of charge.









Database Releases At A Glance

MRCDB P66.1
JULY 2022



Manufacturer's Price Updates

Manufacturer						
No. of Parts Price Changes	7	3	477	85	92	6,803
No. of New Parts	153	0	267	2,384	2,378	1,375
No. of Supersession	0	0	0	0	0	3,397



Manufacturer						
No. of Parts Price Changes	6,496	96	108	96	167	3
No. of New Parts	1,431	129	226	235	67	1,217
No. of Supersession	3,397	0	0	0	0	0

MRCDB P67.0
JULY 2022

New Vehicles in Detail




Manufacturer		
Model	Proton X70	Toyota Corolla Cross
Model Year	6/2022 on	1/2022 on
TPS Project Code	PR278, PR279, PR280, PR281, PR282	TY291
TTS Project Code	PR240	TC025
Body Shape	5 Dr. SUV	5 Dr. SUV
Engine Size	1.5 lit / 1.8 lit	1.8 lit
Total Line Items	3,739	1,016

Manufacturer's Price Updates





Manufacturer		
No. of Parts Price Changes	6,655	5,964
No. of New Parts	1,550	960
No. of Supersession	5,273	5,303





MRCDB P68.0
AUGUST 2022

New Vehicles in Detail

Manufacturer			
Model	Hyundai Grand Starex	Perodua Alza	Subaru Forester
Model Year	5/2020 on	7/2022 on	8/2019 on - 6/2020 on 2/2021 on
TPS Project Code	HY127/HY128	PE204 / PE205 / PE206	SB025/SB026/SB027/ SB028/SB029
TTS Project Code	TC047	TC023	TC031
Body Shape	MPV	MPV	5 Dr. SUV
Engine Size	2.5 lit	1.5 lit	2.0 lit
Total Line Items	1,447	1,951	3,170






Manufacturer's Price Updates

Manufacturer				
No. of Parts Price Changes	197	330	10	46
No. of New Parts	214	2,948	3	77
No. of Supersession	0	5,686	0	0

Manufacturer				
No. of Parts Price Changes	3	53	58	468
No. of New Parts	0	662	658	399
No. of Supersession	0	0	0	399

MRCDB P68.1
AUGUST 2022






Manufacturer's Price Updates





Manufacturer					
No. of Parts Price Changes	3	3	161,272	159,474	357
No. of New Parts	7	7	1,953	2,145	0
No. of Supersession	42	42	0	0	0





Database Releases At A Glance

Manufacturer's Price Updates

MRCDB P68.2
SEPTEMBER 2022



Manufacturer					
No. of Parts Price Changes	191	180	4	267	341
No. of New Parts	158	8	0	708	951
No. of Supersession	0	0	0	0	0

Manufacturer				
No. of Parts Price Changes	115	164	70	75
No. of New Parts	130	74	895	387
No. of Supersession	0	0	1,987	0

Manufacturer				
No. of Parts Price Changes	89	0	0	0
No. of New Parts	374	367	3,045	3,045
No. of Supersession	0	0	3,045	3,045

New Vehicles in Detail

MRCDB P69.0
SEPTEMBER 2022



Manufacturer			
Model	BMW X4	Hyundai Sonata	Kia Grand Carnival
Model Year	2/2022 On	10/2020 On	5/2020 On
TPS Project Code	BM175	HY129	KI079
TTS Project Code	TC031	TC027	TC047
Body Shape	5 Dr. SUV	4 Dr. Sedan	MPV
Engine Size	2.0 lit	2.5 lit	2.2 lit
Total Line Items	816	647	728

New Vehicles in Detail

MRCDB P69.0 (cont.)
SEPTEMBER 2022







Manufacturer			
Model	Mazda 6	Mazda MX-30	Toyota Camry
Model Year	4/2021 On	6/2022 On	2/2022 On
TPS Project Code	MZ142/MZ143	MZ145/MZ146	TY292
TTS Project Code	MZ046/MZ047	TC025	TC027
Body Shape	4 Dr. Sedan	5 Dr. SUV	4 Dr. Sedan
Engine Size	2.0 lit/2.5 lit	-	2.5 lit
Total Line Items	1,340	1,497	1,037






Manufacturer's Price Updates

Manufacturer		
No. of Parts Price Changes	302	309
No. of New Parts	134	133
No. of Supersession	4,189	4,192

Manufacturer's Price Updates

MRCDB P69.1
OCTOBER 2022




Manufacturer						
No. of Parts Price Changes	191	180	4	282	275	437
No. of New Parts	158	8	0	957	960	28
No. of Supersession	0	0	0	0	0	0

Manufacturer					
No. of Parts Price Changes	3	4,486	4,710	333	346
No. of New Parts	0	78	48	423	420
No. of Supersession	0	0	0	0	0



Database Releases At A Glance

MRCDB P70.0
OCTOBER 2022

New Vehicles in Detail





Manufacturer			
Model	XC90 PHEV	XC90	D-MAX
Model Year	12/2015-5/2016 • 6/2016-1/2018 1/2018-11/2019 • 1/2018-11/2019 11/2019-4/2021 • 11/2019-4/2021 4/2021 On	9/2018-11/2019 • 11/2019-4/2021 4/2021-2/2022 • 2/2022 On	5/2013 - 9/2016 5/2013 - 9/2016
TPS Project Code	VO064/VO065/VO066/VO067 /VO068/VO069/VO070	VO071/VO072/VO073/VO074	IS089/IS090
TTS Project Code	TC037	TC037	TC042
Body Shape	5 Dr. SUV	5 Dr. SUV	2 Dr. S/Cab Pick-up
Engine Size	2.0 lit	2.0 lit	2.5 lit
Total Line Items	5,175	2,980	1,156





Manufacturer's Price Updates

Manufacturer		
No. of Parts Price Changes	0	1,134
No. of New Parts	969	93
No. of Supersession	0	0

MRCDB P70.1
NOVEMBER 2022

Manufacturer's Price Updates

Manufacturer				
No. of Parts Price Changes	69	72	8,107	8,462
No. of New Parts	78	78	1,100	1,066
No. of Supersession	3,452	3,453	3,462	3,462

Manufacturer				
No. of Parts Price Changes	513,716	138,740	110	111
No. of New Parts	280,825	199,000	575	575
No. of Supersession	0	107,752	0	0

MRC REAL TIMES PROJECT 2022

New MRC Real Times project have been carried out to replace previously used Thatcham Composite Times (Generic) with the new MRC Real Times (based on specific makes and models). The new MRC Real Times projects include the locally research times with local vehicle manufacturers and data acquired directly from Thatcham, UK.

Although composite times is generally acceptable and fairly accurate, there are some instances that the actual repair times values deviate slightly from the grouped. These discrepancies can be corrected in specific real times.

The benefits of this MRC Real Times project are to improve transparency as well as provide better quality repair estimates guided by standard maintenance repair work based on actual manufacturer vehicle models. Thus, motor insurers / takaful operators and the vehicle

repair industry can confidently produce accurate vehicle repair estimates using detailed vehicle repair information specifically for the local market. MRC Malaysia has continuously acquired vehicle specific real times to accommodate similar vehicle models in Malaysia and also collaborated with the local vehicle

manufacturers to build locally research real times since 2018. In 2022, MRC Malaysia has successfully completed real times research for 11 vehicle manufacturers with 26 vehicle models which consist of 97 vehicle derivatives.

The current times database status as of November 2022, out of 2,534 derivatives of car model variants in the MRC Database, 1,527 derivatives (60.3%) are Thatcham Composite Times, 839 derivatives (33.1%) are Real Times acquired from Thatcham and 168 derivatives (6.6%) are locally research MRC Real Times.



 11 VEHICLE MANUFACTURERS  26 VEHICLE MODELS  97 VEHICLE DERIVATIVES



MRC MALAYSIA IN BRIEF 2022

Modern Vehicles Expert Consortium

6-7 June 2022 and 2 November 2022

MRC Head of Research has been appointed as panel of expert in the new Modern Vehicle Expert Consortium (MOVE). It was officially launched by Cyber Security Malaysia (CSM) and MIROS.



Visit to YDSM and TESDEC

25 August 2022

Visit to Yayasan Diraja Sultan Mizan and TESDEC for collaboration possibilities on certification of EV and hybrid vehicles training program.



METAwards & TVET Award

20 October 2022

MRC Malaysia won the Malaysia's Best Automotive Training, Analysis & Data Centre.

RCAR Annual Conference

25-30 September 2022

MRC Malaysia has participated at the RCAR Annual Conference 2022 in Switzerland. The result of ANCHOR III test on AEB was presented.



MRC Open Day

31 May 2022

MRC Malaysia had successfully organized an open day with various functions such as MRC New Facility Official Opening Ceremony, award presentations, product showcases and hari raya celebration.



ANCHOR III Vehicle Research

1-2 June 2022

MRC Research Team has collaborated with Universiti Teknikal Malaysia Melaka (UTeM) in conducting experimental evaluation on AEB System subjected to varying environment conditions.



Visit by the Ministry of Youth & Sports' KSU

13 August 2022

Visit by Secretary General, YBhg. Dato' Jana Santhiran and Department Skills Development (JPK) for the purpose of seeing cooperation potentials in the field of Technical & Vocational Educational Training (TVET).



MRC Kick-Off 2022

25-27 January 2022

MRC Kick-Off and Business Plan for the year of 2022 was held at Deruan Damai, Janda Baik, Pahang.



MRC ACADEMY HIGHLIGHTS 2022

Visit to Kolej Komuniti Kepala Batas, Penang

17 August 2022
Visitation in search of possibilities and cooperation for training programs.



L1 & L2 Training Course for AmGeneral Insurance Bhd

20-21 July 2022
This certification course includes Level 1: Electric/Hybrid Vehicle Awareness and Level 2: Hazard Management for Emergency & Recovery Personnel.



Structural Body Repair & Vehicle Body Measuring Program

28 June 2022
Certification program for Institut Kemahiran Belia Negara (IKBN) trainers under the MRC Academy.



VTREC Vehicle Theft Lab/ Workshop 2

22 July 2022
MRC Malaysia has participated in this workshop which was held at KLGCC on Reducing Vehicle Theft for Stolen/Fake Spare Parts.

Training Program for First Responders

21 September 2022
MRC Academy has conducted this program for PDRM, JPJ, Jabatan Bomba and VTREC for EV Awareness and Hazard Management to the first responders.



KKTM Study Visit

9 November 2022
Students and lecturers from Kolej Kemahiran Tinggi MARA, Masjid Tanah, Melaka attended ADAS awareness training at MRC Academy.

Workshop Management & AutoPad Presentation in Kedah

26 September 2022
MRC BodyNet team presented and demonstrated the new system to assist Etiqa's panel workshops on body panel repair.



Insurance Policy & Parts Identification Training

18 August 2022
This training program was held at Ipoh, Perak by MRC Academy for ESnet Academy's students.



MRC MALAYSIA SPORTS CLUB ACTIVITIES 2022

MRC Bowling Tournament

23 March 2022

MRC Sports Club has organised bowling tournament for all MRC staff at AEON Shah Alam.



CSR: Post Flood Relief Mission at Taman Sri Muda

30 December 2021

MRC team were working together with other volunteers to assist in cleaning up the SMK Taman Sri Muda school before it reopens.



MRC Team Building 2022

25-27 January 2022

MRC Team Building 2022 was held concurrent with the MRC Kick-Off and Business Plan 2022 at Deruan Damai, Janda Baik, Pahang. Besides meeting, several outdoor activities were held such as ATV ride, jungle trekking, hiking to Gunung Nuang base waterfall, campfire, team building games and morning walks.



Badminton Fun Play

24 August 2022

Recreational activity for MRC staff as a monthly activity under the Sports Club to keep staff having fun and fit.



BMW Ingress Auto Joy Run 2022

8 October 2022

MRC staff has participated in these 5km and 10km running events at Cyberjaya.

Isuzu Cycle For Health 2022

16 September 2022

MRC staff has participated in this 75km cycling event at Alor Setar, Kedah.



MRC Kayaking

23 July 2022

MRC Sports Club has organised kayaking activity for all MRC staff and family in Bagan Lalang, Sepang. The activities include exploring the mangrove forest, navigating small channels, river and estuary.



RESEARCH COUNCIL FOR AUTOMOBILE REPAIR

RCAR is an international body of automotive research centres, whose primary goal is to reduce the human and economic costs of motor vehicle losses. This is done through research into improved vehicle damage resistance, reparability, security and safety. Currently, RCAR has 23 members, spanning 18 countries and five continents: Europe, Asia, North America, South America and Australia. MRC Malaysia is proud to be a member of RCAR since 2004.

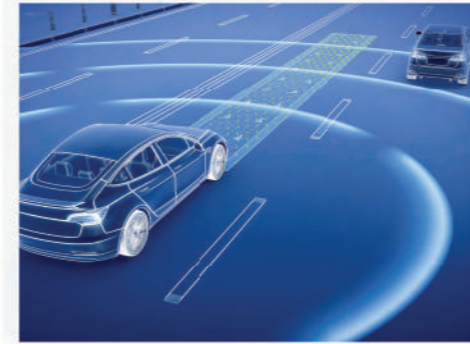
RCAR provides an international forum for members to exchange information on research findings and strategies for implementation. Although research activity is conducted on a daily basis and shared throughout the year, RCAR members meet at least once a year to discuss such topics as the latest repair procedures and processes, industry education, safety features and new technology. All of which impact the cost of insuring and repairing motor vehicles.

RCAR issues policy statements, design guides, position papers and other information for use by those involved in designing, constructing, repairing and insuring motor vehicles. This research is then used as a starting point to enter into meaningful dialogue with vehicle manufacturers and others about putting that research to practical use.

MRC Malaysia is actively involved in RCAR organisation and has participated in various RCAR programs such as RCAR Annual Conferences, RCAR Working Groups, etc. In making the most of benefits in RCAR involvement, MRC Malaysia will assist to promote the RCAR's design evaluation guides to Malaysian vehicle manufacturers and RCAR's cyber security to Malaysian VTREC.



MRC Malaysia participation in various RCAR working groups (WG):-



P-Safe WG



Cyber Security WG



Reparability WG



ADAS Calibration WG



Damageability WG



Electric Vehicle WG



MRC Malaysia has presented at RCAR Annual Conference 2022 in Winterthur, Switzerland, sharing the result of ANCHOR III's experimental evaluation on Autonomous Emergency Braking (AEB) system subjected to varying environment conditions.

MRC Malaysia has presented at RCAR Annual Conference 2019 in Beijing, China, sharing the result of ANCHOR II's experimental evaluation on Lane Departure Warning (LDW), Lane Keep Assist (LKA) and Blind Spot Detection (BSD) systems subjected to varying environment conditions.





Overall Rating Honda HR-V Crash Test

The first edition of Honda HR-V underwent ASEAN NCAP assessment in May 2015 in which the SUV was awarded a 5-Star rating for its AOP and 4-Star rating for COP. However, due to pre-requisite set in that year's assessment protocol, variants that were not fitted with Seatbelt Reminder (SBR) for both frontal occupants were rated as 4-Star. After 7 years since the last assessment, Honda has taken a huge leap by having the SUV to undergo ASEAN NCAP's new 2021-2025 assessment protocol. This Honda HR-V assessment was carried out by Japan Automobile Research Institute (JARI) in July 2022, the first lab outside the ASEAN region situated in Tsukuba, Japan.

The new Honda HR-V is fitted with 6 airbags as standard across its variants. In addition, the model is equipped with standard fitment of Anti-lock Braking System (ABS), Electronic Stability Control (ESC), Seat Belt Reminder (SBR) system for both frontal and rear occupants, Autonomous Emergency Braking (AEB) City and AEB Inter-Urban, Auto High Beam (AHB) and AEB for Motorcycle for Pedestrian Protection technology. The model also offers Blind Spot Visualization (BSV) on the passenger side of the vehicle, Lane Departure Warning (LDW), Forward Collision Warning (FCW) and Lane Keep Assist (LKA) as standard or optional fitment.

In this assessment, the new Honda HR-V has successfully achieved a total score of 81.38 points based on the AOP, COP, SA and MS categories, This has made them eligible to be awarded a 5-Star ASEAN NCAP rating under the 2021-2025 protocol.

	AOP		COP		SAFETY ASSIST		MS		2021-2025 ASEAN NCAP RATING			
Item	Point	Max	Item	Point	Max	Item	Point	Max	5			
ODB	14.60	16.00	FRONTAL	16.00	16.00	EBA	6.00	6.00		BSD/BSV	2.00	8.00
SIDE	8.00	8.00	SIDE	8.00	8.00	SBR	4.50	6.00		ARV	-	4.00
HPT Evaluation	5.40	8.00	Installation	10.43	12.00	AEB City	2.50	2.50		AHB	2.00	2.00
			Vehicle Based CPD	10.00	13.00	AEB Inter-Urban	3.50	3.50		Ped. Protection	2.00	2.00
				1.00	2.00	Advance SATs	3.00	3.00		Advance MST*	2.00	2.00
Score	28.00	32.00		45.43	51.00		19.50	21.00			8.00	16.00
Normalized Score	0.87			0.89			0.93				0.5	
Weighting	40%			20%			20%				20%	
Weighted Score	35.00			17.81			18.57				10.00	
Maximum Star Rating	5			5			5			5		
									OVERALL SCORE	81.38		
									OVERALL SCORE	81.38		
									OVERALL SCORE	81.38		

*Bonus point

Source Courtesy of ASEAN NCAP