

MRC TECHNICAL eBULLETIN

RAISING STANDARDS FOR THE AUTOMOTIVE INDUSTRY



NEWLY
LAUNCHED CARS

ASEAN NCAP :
PERODUA AXIA CRASH TEST

Thank you for reading this MRC Technical eBulletin issue #01/2023/007. If you have any questions regarding the content, or suggestion for improvement, please contact MRC Malaysia via

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ISSUE #01/2023/007

Introduction



Hello everyone,

We bring insight into new vehicles recently launched in Malaysia, along with the information regarding the recall of various Volvo vehicles for a potential issue with the software within the brake control module. We also include the latest updates on Tesla's application to import battery-electric vehicles (BEV) into Malaysia under the BEV Global Leaders Initiatives. In addition, the information on ASEAN NCAP vehicle safety test and overall rating for Perodua Axia 2022 is also included.

Furthermore, in this edition, we would like to share about the IBIS ASEAN conference that brought together various personnel within the ASEAN automotive collision repair industry to explore the latest strategies for sustainable success to drive business growth and stay ahead of the curve.

In this fasting month of Ramadhan, I would like to take this opportunity to wish all Muslims "Salam Ramadhan and Salam Aidil Fitri". May you have a blessed Ramadhan and many joyous and prosperous days ahead. Selamat Hari Raya, Maaf Zahir dan Batin!

Steve Miller
Chief Executive Officer, MRC Malaysia





05

Volvo XC60 PHEV 2021

Volvo XC60 PHEV 2021 is a luxury compact SUV that offers a combination of performance, efficiency, and advanced technology.

07

Perodua Ativa Hybrid 2022

Perodua Ativa Hybrid 2022 in Malaysia: Leasing only, 40% better fuel consumption than regular car!

09

Recalls



11

Database Releases at a Glance

Here's a summary of the recent database releases.

15

MRC Malaysia News

MRC Malaysia has co-hosted the first prestigious ASEAN International Bodyshop Industry Symposium (IBIS).

17

MRC Academy News

MRC Academy has offered a training course in line with Malaysia's development of EV and HEV technology.

19

Latest Development in Battery Electric Vehicle (BEV) in Malaysia

MITI has approved Tesla's application to import battery-electric vehicles (BEV) into Malaysia.

21

Perodua Axia 2022 Crash Test



... Newly Launched Cars



Volvo XC60 PHEV 2021 Facelift launched

Volvo Cars Malaysia (VCM) introduced two variants of the 2021 Volvo XC60. The two variants available at the launch, the T5 AWD Momentum priced at RM278,195 and the Recharge T8 AWD Inscription Plus priced at RM324,656. According to VCM, the XC60 comes with a five-year unlimited mileage general warranty for both models together with eight-year or 160,000 km plug-in hybrid warranty for the T8 model.

Both models come with the 2.0 liter turbocharged four-cylinder engine and an eight-speed automatic gearbox. For the T5, the engine produces 254 PS at 5,500 rpm and 350 Nm of torque from 1,500 to 4,800 rpm that is sent to all four wheels.

Compared to T5, the Recharge T8's engine is aided by a supercharger and produces 320 PS at 5,700 rpm and 400 Nm of torque between 2,200 and 5,400 rpm. The rear axle features an 87 PS/240 Nm electric motor to deliver a total system output of 407 PS and 640 Nm. A larger 11.6 kWh lithium-ion battery added in 2020 provides an all-electric range of 54 km, helping to deliver a fuel consumption figure of 2.2 liters per 100 km.

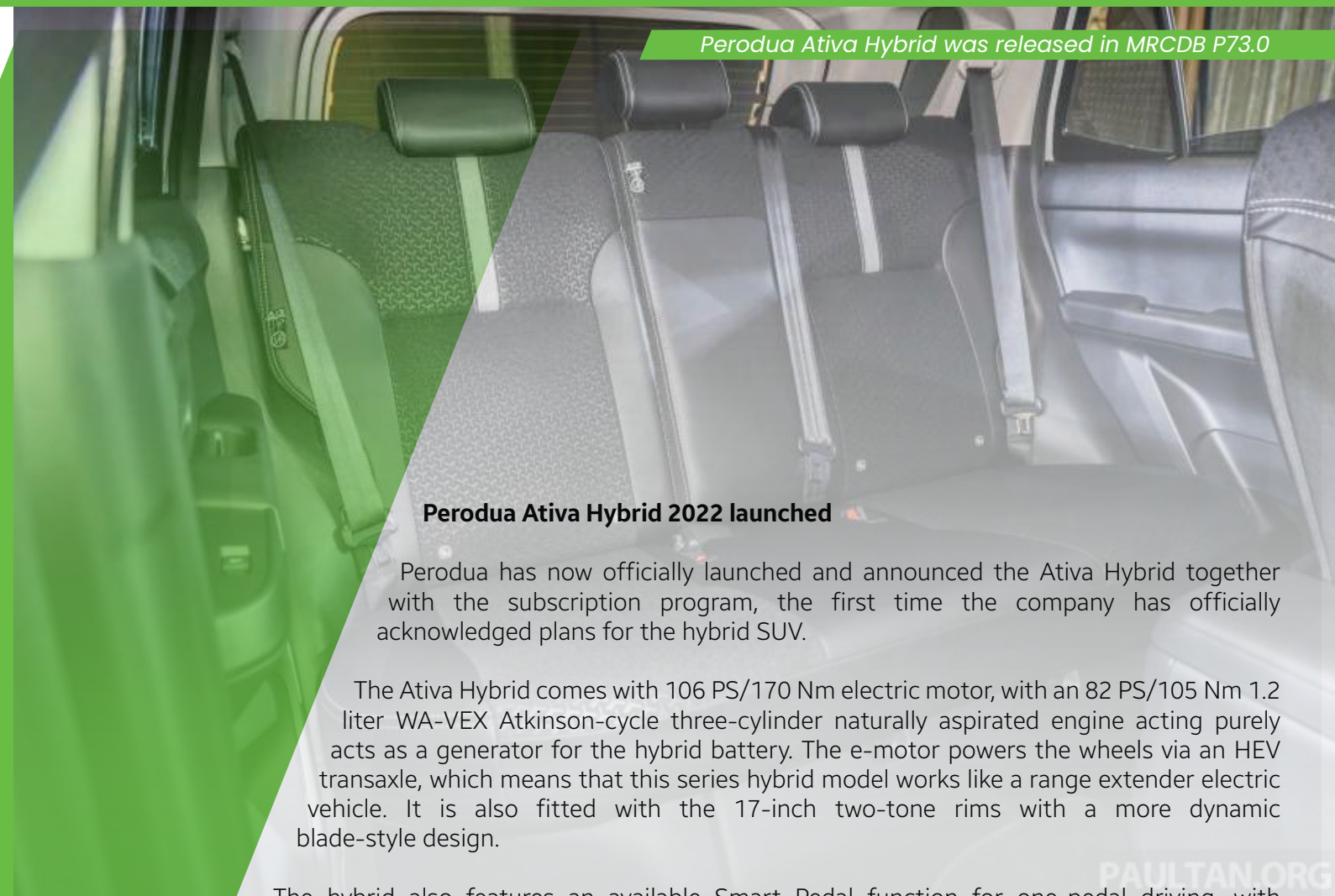
For safety features, the XC60 is equipped with 6 airbags, autonomous emergency braking (AEB) for pedestrians, cyclists, oncoming vehicles and large animal detection, evasive steering assist, lane keeping assist (LKA), blind spot monitoring (BSM) with steering assist and rear cross-traffic alert (RCTA) with braking.



Specification

	XC60 T5 AWD Momentum	XC60 Recharge T8 AWD Inscription Plus
Retail Price	RM278,195	RM324,656
Horsepower (PS)	254 at 5,500 rpm	320 at 5,700 rpm
Engine	2.0 liter turbocharged four-cylinder	2.0 liter supercharged and turbocharged engine with an electric motor
Dimension (mm)	4,708L x 1,902W x 1,653H	
Transmission	8-Speed AT	
Fuel Consumption	7.6L/100km	2.2L/100km

... Newly Launched Cars



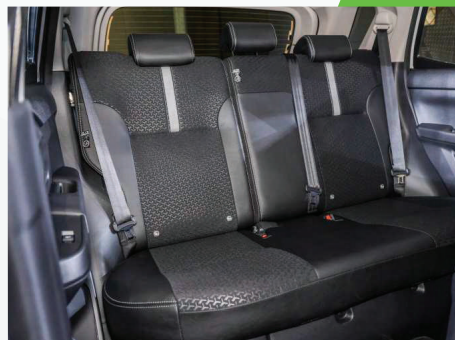
Perodua Ativa Hybrid 2022 launched

Perodua has now officially launched and announced the Ativa Hybrid together with the subscription program, the first time the company has officially acknowledged plans for the hybrid SUV.

The Ativa Hybrid comes with 106 PS/170 Nm electric motor, with an 82 PS/105 Nm 1.2 liter WA-VEX Atkinson-cycle three-cylinder naturally aspirated engine acting purely as a generator for the hybrid battery. The e-motor powers the wheels via an HEV transaxle, which means that this series hybrid model works like a range extender electric vehicle. It is also fitted with the 17-inch two-tone rims with a more dynamic blade-style design.

The hybrid also features an available Smart Pedal function for one-pedal driving, with regeneration and engine braking in place of stepping on the brakes.

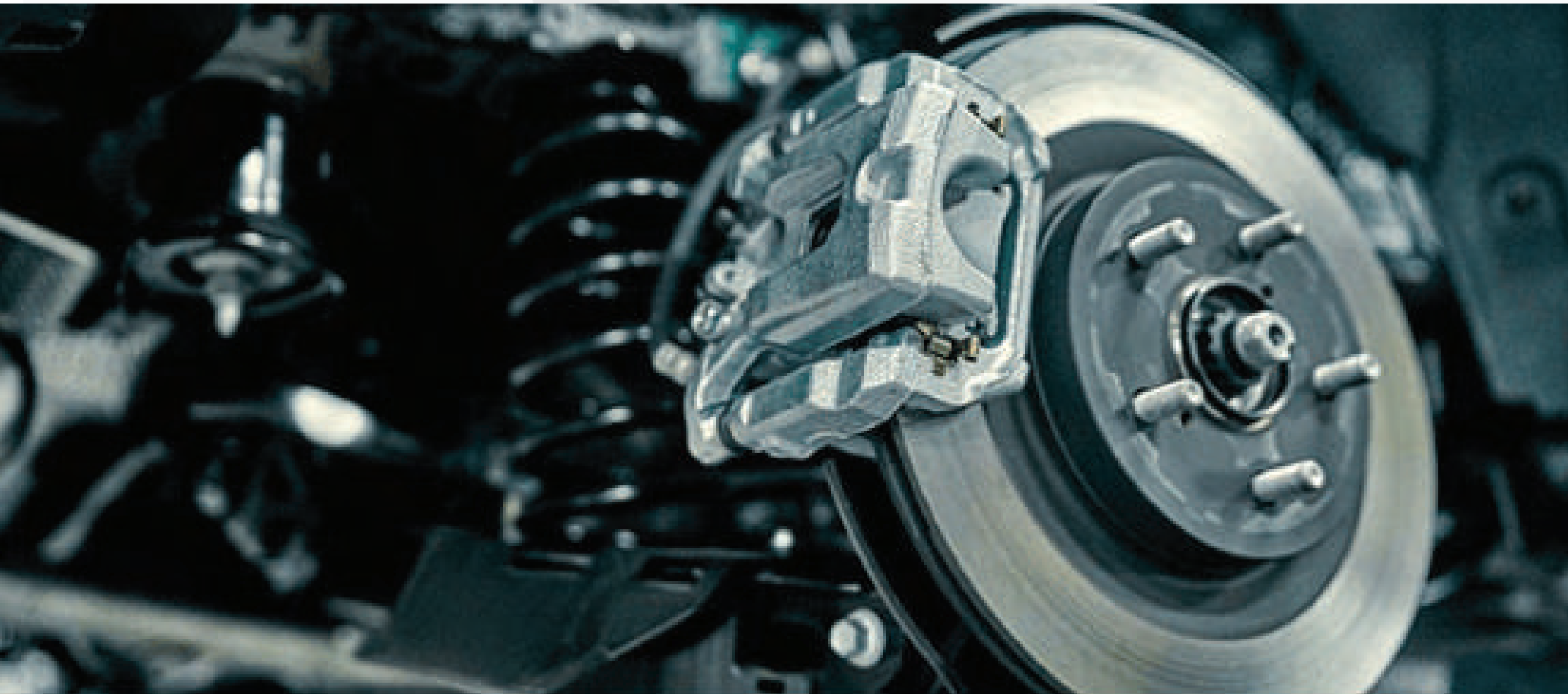
For the subscription program, participants need to pay an upfront payment of RM2,150 which includes a refundable of three months safety deposit, the first month fee and stamp duty followed by a monthly subscription fee of RM500 for the next five years. The mileage cap over the five-year period is 100,000 km. Maintenance inclusive of wear and tear items, insurance and road tax will be covered by Perodua, as the Ativa Hybrids are registered under the company, not in the name of the customers.



Specification

	Perodua Ativa Hybrid 2022
Retail Price	Subscription Fee of RM500/month
Horsepower (PS)	106 PS/170 Nm electric motor and 82 PS/105 Nm SI Engine
Engine	1.2 liter WA-VEX Atkinson-cycle three-cylinder
Dimension (mm)	4,065L x 1,710W x 1,635H
Transmission	E-CVT (Electronically-controlled Continuously Variable Transmission)
Fuel Consumption	3.2L/100km

... Recalls



Volvo recalls 545 cars in Malaysia over brake software issue

Volvo Cars Malaysia (VCM) has announced product recalls involving 545 units of various Volvo models in Malaysia over a potential issue with the software within the brake control module. This exercise is part of a global recall issued by VCM involving 106,691 cars worldwide. Under this exercise, the affected Volvo models involved are model-year 2023 versions of XC40, C40, XC60, S60, V60, XC90 and S90. No other models or variants are affected.

According to VCM, some customers with affected cars may experience a stiff brake pedal and the loss of electronic braking support functions while the braking capabilities of the car will remain via the brake pedal. The driver will be warned via the driver information module (DIM).

However, to date, there was no report of any incidence or injury related to the issue. All affected vehicle owners will be notified to arrange for their vehicles to be rectified.

Database Release at a Glance

DECEMBER 2022

New Vehicle Released



Volvo XC60 PHEV 2018 & 2021



Volvo S60 2015 & 2016



Hyundai i30N 2020



5

MODELS



8

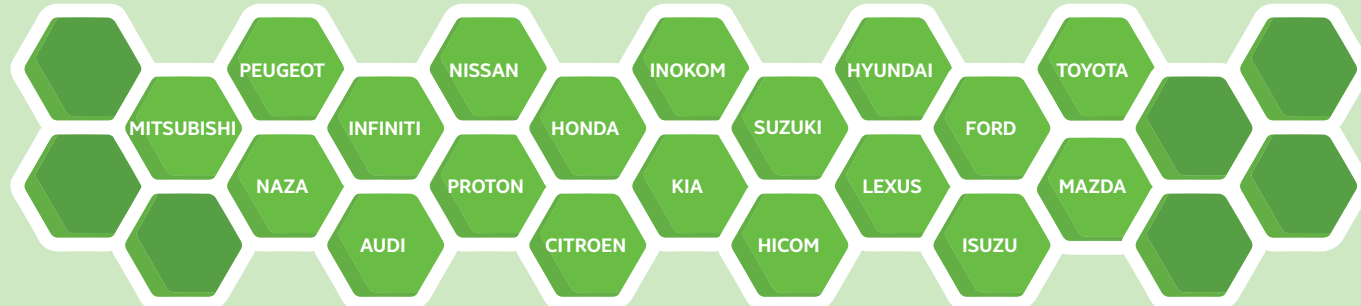
DERIVATIVES



5,526

TOTAL LINE ITEM ATTACHED

Manufacturer's Price Updates



19

TOTAL VEHICLE MANUFACTURERS



61,061

TOTAL PARTS PRICE CHANGES



21,376

TOTAL NEW PARTS



140,211

TOTAL SUPERSESSION

JANUARY 2023

New Vehicle Released



Perodua Ativa Hybrid 2022



Proton Exora 2022



Mitsubishi Triton 2009 & 2012



Toyota Camry 2002 & 2004



6

MODELS



13

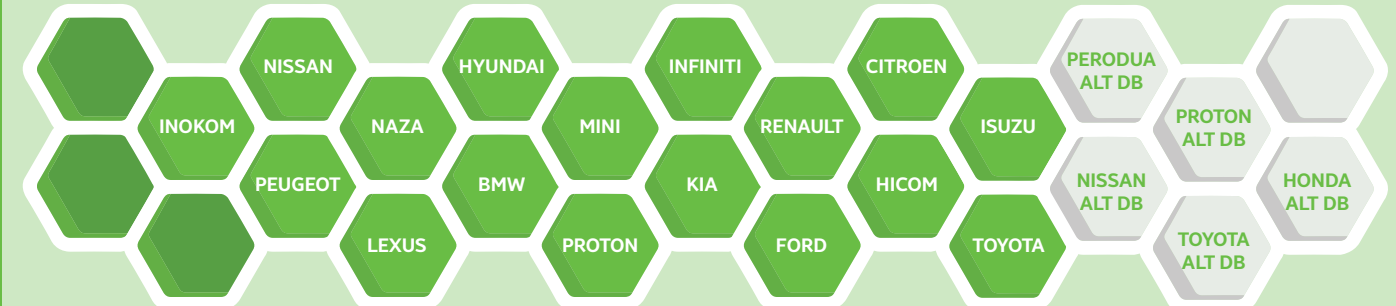
DERIVATIVES



7,407

TOTAL LINE ITEM ATTACHED

Manufacturer's Price Updates



17

TOTAL VEHICLE MANUFACTURERS



201,570

TOTAL PARTS PRICE CHANGES



17,871

TOTAL NEW PARTS



16,269

TOTAL SUPERSESSION



487

TOTAL PARTS PRICE UPDATES (ALT DB)

ALT DB = Alternative Parts Database

Database Release at a Glance

FEBRUARY 2023

New Vehicle Released



Proton Saga 2022



Perodua Axia 2023



Toyota Veloz 2022



3

MODELS



6

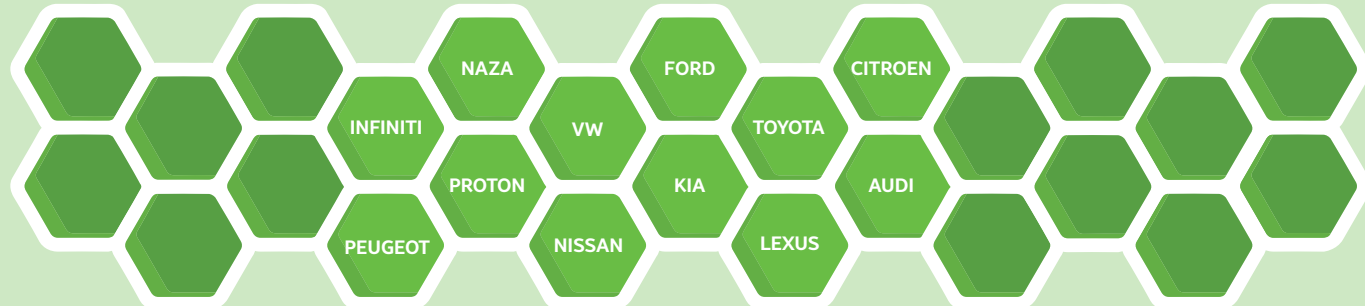
DERIVATIVES



3,678

TOTAL LINE ITEM ATTACHED

Manufacturer's Price Updates



12

TOTAL VEHICLE MANUFACTURERS



1,464,359

TOTAL PARTS PRICE CHANGES



89,218

TOTAL NEW PARTS



267,928

TOTAL SUPERSESSION

MARCH 2023

New Vehicle Released



Hyundai Kona EV 2021



Hyundai Ioniq 5 2022



Hyundai Palisade 2021



Mazda BT-50 2021



Nissan Leaf 2021



5

MODELS



16

DERIVATIVES



9,601

TOTAL LINE ITEM ATTACHED

Manufacturer's Price Updates



12

TOTAL VEHICLE MANUFACTURERS



474,510

TOTAL PARTS PRICE CHANGES



170,838

TOTAL NEW PARTS



18,994

TOTAL SUPERSESSION

... MRC Malaysia News



As the world's leading provider of automotive collision repair conferences, IBIS brought the knowledge and expertise from across five continents to the ASEAN region for the first time. It was organised under the 2023 theme of "Sustainable Strategies for Success" on 16 March 2023 in Kuala Lumpur, Malaysia as part of Automechanika Kuala Lumpur 2023 at the Kuala Lumpur Convention Centre.

Supported by MRC Malaysia, IBIS ASEAN 2023 explored current challenges and opportunities within the ASEAN region, offering answers to key questions affecting the market. It was the perfect opportunity

to access eye-opening insights, to increase visibility and exposure, and to meet and connect with other businesses in the region.

IBIS ASEAN brought together top managers, senior directors, and business owners within the ASEAN automotive collision repair industry to explore the latest and greatest in strategies for sustainable success to drive business growth and stay ahead of the curve. IBIS ASEAN sponsor partners included 3M, Axalta and Repairify and the event is organized in association with Body Shop News.



Many speakers and panelists shared their expertise and experience during this IBIS ASEAN 2023 event. Among them are Antony Lee, Chairman of PIAM, Jason Moseley, CEO of IBIS Worldwide, Steve Miller, CEO of MRC Malaysia, Benildus Saw, Chairman of AMLA, Chris Chesney from Repairify, James Muse from Axalta Refinish, Benedict Ngieng from Tan Chong Ekspres Auto Servis, Jason Scharton from 3M Collision, Michel Malik, CEO of BodyShop News International, Mina Sahib from XA Group, Ts. Siti Maisarah from MARii and many others.



In this event, Chubb Insurance Malaysia Berhad was awarded two awards by MRC Malaysia which are The Fastest Estimating Claims Approval Time for Own Damage Claims 2022 and The Most Improved Average Estimate to Approval Time for Own Damage Claims 2022.

MRC Malaysia awarded Etiqa Insurance Malaysia with three prestigious awards including The Fastest Estimate Claims Approval Time for Own Damage Claims 2022 (Takaful Operator), The Highest Number of Approved Claims 2022, and The Most Supportive Insurance Company On MRC Training 2022.



2023 THEME
Sustainable Strategies for Success.

Supported by
mrc malaysia

IBIS INTERNATIONAL BODYSHOP INDUSTRY SYMPOSIUM
ASEAN 2023



... MRC Academy News



Aligned with the development Electric Vehicle (EV) and Hybrid Electric Vehicle (HEV) technology in Malaysia, MRC Academy has provided training courses which are Level 1 and Level 2 : Award in Electric and Hybrid Vehicle Awareness and Hazard Management for Emergency and Recovery Personnel. For advanced course, there is Level 3 : Award In Electric and Hybrid System Repair and Replacement offered to candidates who have completed the Level 1 and Level 2 courses.

The Level 1 and Level 2 courses are designed to provide candidates such as repairers and vehicle recovery personnel with an introduction to the knowledge of safe working practices, the dangers surrounding them and the precautions required to avoid potential injury when near electric or hybrid vehicles. Additionally, it also provides value-added knowledge such as types of EV and HEV, hazards associated with EV and HEV, types of charging, high-voltage system isolation,

Level 1 & 2 - Electric/Hybrid Vehicle Awareness & Hazard Management For Emergency & Recovery Personnel.

Level 3 - Electric/Hybrid System Repair & Replacement.



and reinstating the vehicle, reducing risk and handling components of EV and HEV.

For the Level 3 advanced course, it provides the upskill knowledge to carry out the repair activities on EV and HEV. It is designed for those who may encounter EV and HEV within routine maintenance situations and

who need the skills to work safely around a vehicle that may have damage to its high-potential energy or electrical systems.

These training courses will be awarded with IMI International Qualification accredited by the Institute of the Motor Industry (IMI International, UK).



Training on EV/HEV Awareness & Hazard Management for Emergency & Recovery Personnel attended by the AmGeneral and tow truck personnel in January 2023.



Training on EV/HEV Awareness & Hazard Management for Emergency & Recovery Personnel attended by the Etiqa General and Takaful personnel in December 2022.



MRC Academy has conducted training program for First Responders (PDRM, JPJ, Bomba and VTREC) in educating them with the necessary skills and knowledge to handle emergencies involving EV/HEV in September 2022.



MRC Academy has expanded the EV/HEV training by purchasing the new electric vehicle, BYD Atto 3 that been used for training material in March 2023.



A newly dedicated and specialized training room for EV/HEV training courses completed in March 2023 and complies with the IMI International Certification requirement.



The EV/HEV Level 3 training includes practical and hands-on learning to educate the participants with the necessary skills and experience whilst carrying out diagnostic, testing and repair activities.

... Latest Development in Battery-Electric Vehicle (BEV) in Malaysia



The Ministry of International Trade and Industry (MITI) has approved Tesla's application to import battery-electric vehicles (BEV) into Malaysia. Tesla presence in Malaysia is under the BEV Global Leaders Initiatives, or "Peneraju Global Battery Electric Vehicle (BEV)" which allows Tesla to enter the Malaysian market without a partner for franchise APs, and it is the first successful applicant of this program.

Under this MITI initiative, Tesla will establish a head office in Malaysia, introduce the Tesla Experience and Service Centers as well as supercharger network.

The presence of Tesla in Malaysia is expected to create skilled and better paying job opportunities in the BEV industry, as well as promoting local companies' participation in the Tesla ecosystem both domestically and globally.

"We are pleased by Tesla's decision to establish its presence in the Electric Vehicle (EV) ecosystem in Malaysia. This demonstrates Tesla's confidence in our economic fundamentals and conducive business environment. Even as major global brands decide to invest and re-invest in Malaysia, MITI and its agencies will



Tengku Datuk Seri Utama
Zafrul Abdul Aziz, MITI Minister

continue to enhance efforts to improve the ease of doing business, while continuously profiling Malaysia as pro-trade, pro-industry and pro-investment. We will also strategically leverage on our established Electrical & Electronics ecosystem to make Malaysia the preferred investment destination for technology related to electric mobility," said Tengku Datuk Seri Utama Zafrul Abdul Aziz, MITI Minister.

Currently, Malaysia's National Automotive Policy (NAP) only allows companies with bumiputera shareholding to hold franchise APs. However, many EV-exclusive carmakers work on a direct to customer, with no dealer or partner business model. According to the MITI's requirements, the vehicles imported into Malaysia must be battery electric vehicles (no hybrids), and must be SAE J3016 Certified Level 2 Autonomous. Other requirements are the company must set up facilities in Malaysia, such as an office, sales centers, and service centers within 3 years of approval. The company must also install at least 50 units of DC fast chargers with the minimum charging power of 180 kW, and not less than 30% (15 units) of these chargers must be accessible for the public to use, allowing usage by electric cars from other brands.

Besides, the company must hire and develop the skill-sets of at least 100 Malaysians, with the total workforce of the company being at least 80% Malaysian. The company must train at least 5 students through



industrial internship and also cooperate with at least 10 higher education or TVET centers for knowledge transfer on BEVs, BMS, EV chargers, or other related technologies. For local charging networks, it must cooperate with at least 10 local companies and local contractors.

The entry of Tesla has been facilitated by MITI through the introduction of the BEV Global Leaders initiative, which aims to help boost BEV demand in the local market and further promote the development of the entire ecosystem to support BEV adoption.

This article is extracted from [Paultan.org/theedgemarkets/themalaysianreserve](https://paultan.org/theedgemarkets/themalaysianreserve)



... Perodua Axia 2022 Crash Test



Overall Rating Perodua Axia Crash Test

The first edition of Perodua Axia underwent ASEAN NCAP assessment in 2014 in which the hatchback achieved a 4-star rating for both AOP and COP categories. Since the last assessment, Perodua has taken a huge leap by having this hatchback model undergo ASEAN NCAP's new 2021-2025 assessment protocol.

Under the current 2021-2025 assessment control, the new Perodua Axia was tested with two additional assessment categories. The assessment was carried out by ASEAN NCAP at MIROS PC3 Crash Lab, Melaka. The hatchback is equipped with two airbags across its variants and six airbags fitment in its highest variants. In addition, the model is also equipped with standard fitment of the ABS, ESC, SBR for both frontal and rear occupants and Pedestrian Protection technology.

Additionally, safety assist technologies such as LDW, FCW, AEB City and AEB Inter-Urban, AEB Pedestrian, RCTA, BSD for both sides of the vehicle and AHB are available as optional equipment in all its variants.

In the assessment, the new Perodua Axia obtained a total score of 73.55 points and achieved the maximum rating of 5 stars for AOP, COP and SA categories. For MS category, the maximum rating of 4 stars was achieved and made the hatchback to be awarded with a 4-Star ASEAN NCAP rating.

	AOP		COP		SAFETY ASSIST		MS		2021-2025 ASEAN NCAP RATING			
Item	Point	Max	Item	Point	Max	Item	Point	Max	4			
ODB	14.96	16.00	FRONTAL	16.00	16.00	EBA	6.00	6.00		BSD/BSV	4.00	8.00
SIDE	6.69	8.00	SIDE	8.00	8.00	SBR	4.50	6.00		ARV	-	4.00
HPT Evaluation	4.00	8.00	Installation	10.43	12.00	AEB City	1.25	2.50		AHB	1.00	2.00
			Vehicle Based	9.00	13.00	AEB Inter-Urban	1.75	3.50		Ped. Protection	2.00	2.00
			CPD	-	2.00	Advance SATs	3.00	3.00		Advance MST*	2.00	
Score	25.65	32.00		43.43	51.00		16.50	21.00			7.00	16.00
Normalized Score	0.80			0.85			0.79				0.4375	
Weighting	40%			20%			20%				20%	
Weighted Score	32.06			17.81			15.71				8.75	
Maximum Star Rating	5			5			5			4		
											OVERALL SCORE	
											73.55	
											4	

*Bonus point

Source Courtesy of ASEAN NCAP

