

MRC RESEARCH BROADCAST



**THE LAUNCH OF MRC'S LOCALLY RESEARCH VEHICLE SPECIFIC
REAL TIMES DATABASE PROJECT FOR PROTON X50**

Thank you for reading this MRC Research Broadcast Issue #01/2026/004. If you have any questions regarding the content, or suggestion for improvement, please contact MRC Malaysia via

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INTRODUCTION



Steve Miller
Chief Executive Officer,
MRC Malaysia

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We are pleased to introduce this edition of our MRC Research Broadcast, dedicated to the Vehicle Specific Real Times Project, featuring the locally researched Proton X50. This initiative represents a significant milestone in our ongoing commitment to deliver accurate, relevant, and market-driven automotive intelligence tailored specifically to the Malaysian automotive industry.

The Vehicle Specific Real Times Project is built on a comprehensive research process that integrates with vehicle-specific data validation. By focusing on a specific model, such as the Proton X50, we are able to achieve a higher level of precision, ensuring that the data reflects real-world conditions, and local specifications.

The key advantage of this project lies in its ability to enhance transparency, consistency, and confidence across the automotive value chain. Accurate, Vehicle Specific Real Times data supports better decision-making, improves operational efficiency, and ultimately elevates service quality for all stakeholders, from insurers and repairers to assessors and parts suppliers.

Through this initiative, we hope to encourage stronger collaboration among industry players within the automotive ecosystem. We believe that collective participation, data sharing, and alignment towards common standards are essential to raising industry benchmarks. Initiatives such as the Vehicle Specific Real Times Project are designed not only to add value to individual organisations, but also to support and strengthen the broader efforts led by MRC Malaysia in advancing a more sustainable, credible, and progressive automotive industry.

We look forward to continued engagement and support from the industry as we move forward together in shaping a more data-driven and service-oriented future.

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Executive Summary

MRC Malaysia provides repair times database for use in estimating the time required to remove and replace vehicle panels and parts. It also incorporates the repair methodology to meet manufacturers' specifications. There are two types of repair times:

- Thatcham Composite Times which is repair times categorised based on vehicle types and sizes.
- Real Times acquired from Thatcham, and Locally Research Real Times based on vehicle specific makes and models.

Prior to 2018, only composite times have been used in the claim estimating process. Subsequently, we have introduced Vehicle Specific Real Times to further improve by matching the actual measurements, parts, components and methods. Vehicle Specific Real Times are produced by analysing panel structures and methods review.

MRC Malaysia, in partnership with Thatcham Research, has continuously acquired Vehicle Specific Real Times to accommodate similar vehicle models in Malaysia. MRC Malaysia is collaborating with local vehicle manufacturers to build Locally Research Vehicle Specific Real Times.

Benefits

Although composite times is generally acceptable and fairly accurate, there are some instances that the actual repair time values deviate slightly from the grouped average due to some car unique design or parts component. These discrepancies can be corrected in Vehicle Specific Real Times.

The repair times for every task and its sub-operation will be transparent and visible in real times. It would be beneficial for future audits and can also be used as a reference for resolving any dispute on claim estimates.

Motor insurers, takaful operators and vehicle repair industry can confidently produce accurate vehicle repair estimates using detailed vehicle repair information specifically for the local market. This will help improve transparency as well as provide better quality repair estimates guided by standard maintenance repair work based on actual manufacturer vehicle models.

The current times database status as of December 31, 2025, out of 3,174 derivatives of car model variants in the MRC Database, 1,799 derivatives (56.7%) are Thatcham Composite Times, and 1,375 derivatives (43.3%) are Vehicle Specific Real Times. (Figure 1.0)

Currently, the MRC database for vehicle specific real time data covers 29 VMs, incorporating local research conducted by our dedicated research team at our research centre, and encompasses a total of 201 vehicle derivatives, including 193 Proton derivatives and 20 Perodua derivatives. (Figure 2.0)

Figure 1.0: MRC Times Database

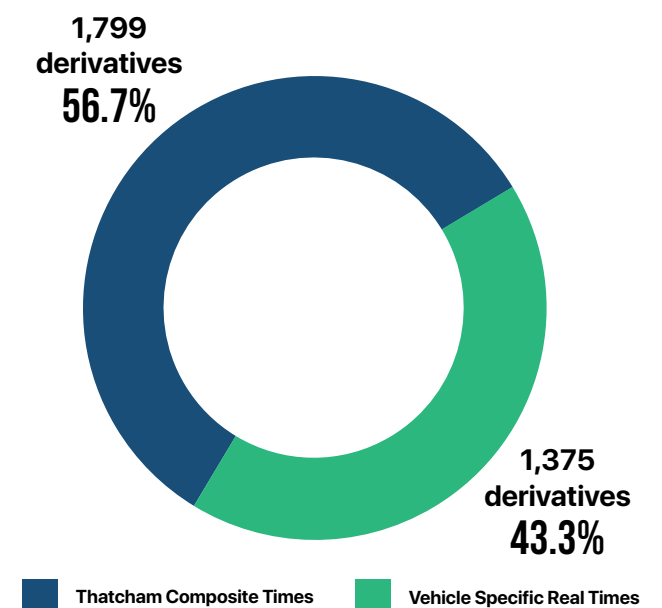


Figure 2.0: Vehicle Specific Real Times by Vehicle Manufacturers & Number of Vehicle Derivatives.

193	50	18
148	46	16
114	45	16
97	36	15
81	35	9
77	28	6
72	27	5
66	21	2
58	20	1
55	18	

MRC Malaysia's Locally Research Vehicle Specific Real Times Project for Proton X50

MRC Malaysia has expanded its Locally Researched Vehicle Specific Real Times database with the inclusion of the latest project: Proton X50. This new addition is available in January 2026.

In completing this project, our research team follows several phases and steps to ensure that all collected data is accurate and reliable. The key steps are outlined below:

1. MET (Mechanical, Electrical, Trim)

This represents the time required to remove and reinstall mechanical, electrical, or trim components. It ensures that the panel is clear and safe to work on.

2. Panel

This covers the time needed to carry out all panel-related tasks, such as repairing dents, aligning panels, or replacing damaged sections.

3. Paint

This includes the preparation and painting process, involving sanding, priming, masking, and applying

paint to restore the panel's finish.

4. Corrosion Protection

This accounts for the time to apply protective coatings to prevent rust and long-term damage.

By dividing repair or refinishing work into MET, Panel, Paint and Corrosion Protection, tasks can be estimated more accurately and performed more efficiently. This clear breakdown provides both technicians and customers with a transparent understanding of the work involved.

For this Proton X50 project, it covers 12 MVIs across five trim levels and three model year ranges within the MK1 (SX11) platform.

The trim level covers such as 1.5 TGD i Flagship, 1.5T Premium, 1.5T Executive, 1.5T Standard, and 1.5T Sport Edition / 1.5T Flagship. (Figure 3.0)

Figure 3.0: Proton X50 Derivatives Involved

No.	MVI Code	Trim Level	Model Range
1	PR262	1.5 TGD i Flagship	(2020-2024) (SX11)
2	PR261	1.5T Premium	(2020-2024) (SX11)
3	PR260	1.5T Executive	(2020-2024) (SX11)
4	PR259	1.5T Standard	(2020-2024) (SX11)
5	PR302	1.5T Sport Edition	(2024-2025) (SX11 (RC))
6	PR297	1.5 TGD i Flagship	(2024-2025) (SX11 (RC))
7	PR296	1.5T Premium	(2024-2025) (SX11 (RC))
8	PR295	1.5 Executive	(2024-2025) (SX11 (RC))
9	PR294	1.5T Standard	(2024-2025) (SX11 (RC))
10	PR305	1.5T Flagship	(2025) (SX11 FL)
11	PR304	1.5T Premium	(2025) (SX11 FL)
12	PR303	1.5T Executive	(2025) (SX11 FL)



Example of Repair Times for Proton X50



The examples illustrate a clear difference between existing generic repair times and the Locally Researched Vehicle Specific Real Times developed specifically for the Proton X50. The generic times, derived from composite databases, are designed to cover a broad range of models and conditions. While useful as a general reference, they might not fully reflect the actual repair complexity and structure of a specific vehicle model.

Based on the analysis, the variance between generic times and Vehicle Specific Real Times ranges within approximately five per cent from one panel to another. The Vehicle Specific Real Times figures demonstrate greater accuracy because they are derived from hands-on local research,

panel-by-panel assessment, and model-specific validation for the Proton X50. This approach ensures that the recorded times reflect actual repair processes, tools, and labour considerations, rather than relying on averaged assumptions across multiple vehicle platforms.

Overall, this comparison reinforces the importance of adopting Vehicle Specific Real Times data to improve precision, fairness, and transparency in repair estimation. By moving away from generic benchmarks and towards Locally Researched Vehicle Specific Real Times data, industry stakeholders can achieve more consistent assessments, reduce disputes, and enhance service quality across the automotive ecosystem.

Front Collision Example



Based on the comparison shown, the Locally Researched Vehicle Specific Real Times for the Proton X50 record a total repair time of 34.5 hours, compared to 35.9 hours under the existing

generic composite times. This represents a reduction of 1.4 hours, or approximately 4%, indicating that the generic benchmark slightly overestimates the actual repair effort required for the selected front-related panels.

This variance demonstrates the strength of the Vehicle Specific Real Times approach, as the locally researched data is derived specifically from the Proton X50's design, panel structure, and real-world repair conditions. By reflecting the true repair process more accurately, Vehicle Specific Real Times provides a fairer and more precise reference, helping to improve estimation consistency and decision-making across the automotive repair and assessment ecosystem.

Parts Name	New Locally Research Vehicle Specific (PR261)	Thatcham Composite (TC025)	Total Times (MET, Panel and Paint)	
			Difference	
			Hours	%
Bonnet	34.5 HRS	35.9 HRS	-1.4	-4%
Front Pillar Outer RH				
Door Glass Front Window RH				
Door Front RH				
Fender Front RH				

Rear Collision Example

The comparison indicates that the Locally Researched Vehicle Specific Real Times for the Proton X50 show a total repair time of 46.4 hours, compared to 44.9 hours under the existing generic composite times. This reflects an increase of 1.5 hours, or approximately 3%, suggesting that the generic benchmark slightly underestimates the actual repair effort required for the selected rear and side panels.

that are not fully captured in generic times. The Vehicle Specific Real Times figures, being locally validated and vehicle-specific, provide a more accurate representation of real-world repair conditions, supporting fairer assessments and more reliable



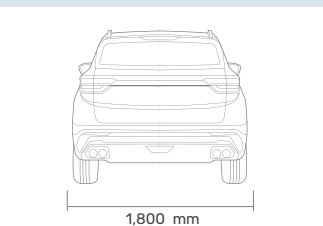
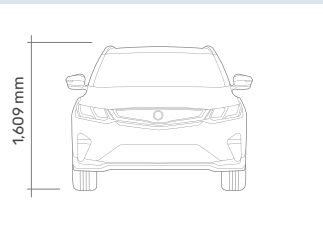
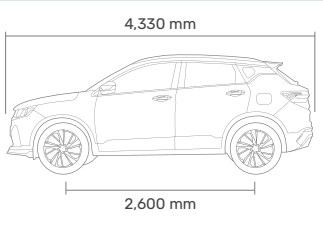
This difference highlights the importance of model-specific research, as certain areas of the vehicle may involve greater complexity, accessibility constraints, or additional repair steps

Parts Name	New Locally Research Vehicle Specific (PR261)	Thatcham Composite (TC025)	Total Times (MET, Panel and Paint)	
			Difference	
			Hours	%
Quarter Panel RH	46.4 HRS	44.9 HRS	+1.5	+3%
Lamp Assembly Rear RH (tts)				
Door Glass Rear Window RH				
Door Rear RH				
Runningboard Panel RH				

VEHICLE

Manufacturer : Proton
Model : X50
Year : 2020 On
MVI Code : PR259, PR260
PR261 & PR262
MRC Times : PR261
Version : MVI210101_R1

DIMENSION



CRASH SAFETY RATING



Overall Score
84.26



VEHICLE SPECIFICATIONS

Variant	Standard	Executive	Premium	TGDi Flagship
Price	RM 79,200*	RM 84,800*	RM 93,200*	RM 103,300*
Engine	12-valve DOHC, Turbocharged with Variable Valve Timing			12-valve DOHC, Turbocharged with Direct Fuel Injection and Variable Valve Timing
Capacity	1,477 cc			
Power	148 hp at 5,500 rpm			175 hp at 5,500 rpm
Torque	226 Nm at 1,500 rpm			255 Nm at 1,500 rpm
Transmission Type	Dual-clutch Automatic (Wet)			
MVI Code	PR259	PR260	PR261	PR262
MRC Times	PR261			

* The price shown reflects the 2020 pricing.

VEHICLE FEATURES

 PA AUTO PARK ASSIST TGDi FLAGSHIP ONLY	 AEB AUTONOMOUS EMERGENCY BRAKING TGDi FLAGSHIP ONLY	 LKA LANE-KEEPING ASSIST TGDi FLAGSHIP ONLY	 ACC ADAPTIVE CRUISE CONTROL TGDi FLAGSHIP ONLY	 BSD BLIND SPOT DETECTION TGDi FLAGSHIP ONLY
 360° 360-DEGREE CAMERA PREMIUM & TGDi FLAGSHIP	 AHB AUTO HIGH BEAM TGDi FLAGSHIP ONLY	 VSC VEHICLE STABILITY CONTROL ALL VARIANTS	 HSA HILL-START ASSIST ALL VARIANTS	 EPB ELECTRONIC PARKING BRAKE ALL VARIANTS
 TPMS TIRE PRESSURE MONITORING SYSTEM PREMIUM & TGDi FLAGSHIP	 AUTOMATIC CLIMATE CONTROL PREMIUM & TGDi FLAGSHIP	 SUNROOF PANORAMIC TGDi FLAGSHIP ONLY	 NAVIGATION ALL VARIANTS	 KEYLESS-ENTRY SYSTEM PREMIUM & TGDi FLAGSHIP

Crash Safety Rating
for Proton X50



AOP			COP			SAFETY ASSIST			2017-2020 ASEAN NCAP RATING
Item	Point	Max	Item	Point	Max	Item	Point	Max	5
ODB	13.42	16.00	FRONTAL	16.00	16.00	EBA	8.00	8.00	
SIDE	16.00	16.00	SIDE	8.00	8.00	SBR	3.00	6.00	
HPT Evaluation	2.00	4.00	Installation	9.50	12.00	BST	1.00	2.00	
			Vehicle Based	8.00	13.00	Advance SATs	2.00	2.00	
Score	31.42	36.00		41.50	49.00		14.00	18.00	OVERALL SCORE
Normalized Score	0.87			0.85			0.78		
Weighting	50%			25%			25%		
Weighting Score	43.64			21.17			19.44		
Maximum Star Rating	5			5			5		5