

# TRAINING BROCHURES

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# **MRC Training**





# **IMI INTERNATIONAL L1 & L2 AWARD IN ELECTRIC / HYBRID VEHICLE AWARENESS & HAZARD MANAGEMENT FOR EMERGENCY & RECOVERY PERSONNEL**

# Level 1 & Level 2: Award In Electric / Hybrid Vehicle Awareness & Hazard Management For Emergency & Recovery Personnel

## ■ Course Aim

This course is designed to provide candidates such as repairers as well as vehicle recovery personnel with an introduction to the knowledge of safe working practices, the dangers surrounding and the precautions required to avoid potential injury when near Electric/Hybrid vehicles. It is also for those people who may encounter accident damaged or broken-down vehicles, e.g., emergency services and roadside recovery operators.

It contains the knowledge required to work safely around a vehicle's high & low voltage electrical system and electric drive train system.

This course offers an introduction to this specialized industry sector which in addition to complimenting their current industry qualifications and experience, will enable candidates to continue to work safely within their role. These non-technical roles can include but are not exclusive to:

- Managers
- Vehicle Detailers/Valeting
- Parts Advisors
- Sales and After Sales Advisors
- Event Staff
- Vehicle Recovery Personnel
- Emergency Services Personnel
- Vehicle Dismantlers
- Vehicle Damage Assessors
- Electric/Hybrid professional Vehicle Drivers
- Insurers
- Adjusters
- Repairers
- Automotive College Students



## ■ Course Objective

The content of this qualification has been designed to give the candidates the knowledge required to work safely around Electric/Hybrid vehicles during emergency and recovery situations. It contains one mandatory unit covering:

- The types of Electric/Hybrid vehicles available
- Hazards associated with motor vehicle high energy electrical systems
- Working safely around Electric/Hybrid vehicles including charging
- Know the levels of current and voltage that present a hazard to humans
- Know the appropriate methods to isolate safely the high energy electrical system and carry out a safe method to re-instate the vehicle following the manufacturer's instructions
- Know the correct method of connection of an alternative power source (if permissible) to an electrically propelled/hybrid vehicle for the purpose of jump starting and/or charging the vehicle
- Candidates completing this qualification will acquire significant core knowledge of working safely around, but not the maintenance of Electric Hybrid vehicles.
- How to reduce the risk of injury when encountering electric/hybrid vehicles
- How to safely transport and store electric/hybrid vehicle

## About

This qualification contains the knowledge of the dangers surrounding electric vehicles and the precautions to avoid potential injury. The purpose and aim of the suite IMI Awards' electric vehicle qualifications (VRQs) is to instruct individual from the retail automotive industry and the public service sector (for example, members of the emergency services, who may attend an accident involving an electric vehicle) in the maintenance, service, and/or handling of electric vehicles.

These qualifications have been developed by IMI in conjunction with electric vehicle manufacturers, component suppliers and the IMI Sector Skills Council. They are the first qualifications of their kind to address electric vehicle (high voltage) technology. The qualifications are essential to ensure the health and safety of individuals working with electric vehicles.

## Entry Requirements

There are no formal entry requirements for this qualification and learners are not expected to have any prior knowledge or experience, however an interest in the subject area is advisable.

Pre-requisite : **e-Learning EV (Knowledge Check)**

Assesment : **Level 1 = 60%**

Passing Mark : **Level 2 = 60%**

## Course Detail

Duration : **2 days**

Certificate : **IMI International Qualification & MRC (Attendance & Accomplishment)**

## Notes

- This course provides the knowledge required to work with vehicles that are powered by live high energy electrical components and associated systems.
- This course does not require any previous training or repair knowledge within the automotive industry.
- This course does not cover commercial or domestic electrical installations.

## Schedule - E-Learning (Self-Paced)

CPD Hour	Course
6	<b>Package EV Level 1:</b> <ul style="list-style-type: none"><li>• 48-Volt and Dual Voltage System</li><li>• EV 1 - Vehicle Identification</li><li>• EV 2 - Health and Safety</li></ul>





## Schedule - Day 1

Time	Course Description
08:30 AM	Arrival of Participants and Breakfast
09:00 AM	Workshop Safety & Rules Introduction Electric / Hybrid Vehicle Training Location & PPE Introduction to Electric/ Hybrid Vehicles <ul style="list-style-type: none"><li>• Types of electric/ hybrid vehicles available in the market</li><li>• Identify electric/hybrid vehicles</li><li>• Differences between electric/hybrid vehicles (including charging)</li></ul>
10:30 AM	Morning Tea Break
10:45 AM	Understanding High Voltage Safety <ul style="list-style-type: none"><li>• Hazards associated with high energy vehicle electrical systems</li><li>• Hazards associated with transportation, storage &amp; disposal of high voltage batteries</li><li>• Safety precautions approach around high energy vehicle electrical systems</li></ul>
01:00 PM	Lunch Break
02:00 PM	INT EV1 Written Assessment (IMI)
03:30 PM	Evening Tea Break
03:45 PM	Discussion/ Answer Session – INT EV1 Written Assessment (IMI)
05:00 PM	Session Ends

## Schedule - Day 2

Time	Course Description
08:30 AM	Arrival of Participants and Breakfast
09:00 AM	Review of yesterday's topics
09:30 AM	Electric / Hybrid Vehicle Routine Maintenance Activities <ul style="list-style-type: none"><li>• Electric / Hybrid Vehicle System Components and Operation</li><li>• Safety precautions when carrying out maintenance and repair activities</li></ul>
10:30 AM	Morning Tea Break
10:45 AM	Demonstration & Practical <ul style="list-style-type: none"><li>• Identify Electric / Hybrid Vehicle System Components</li><li>• Initial Inspection and Handling</li><li>• Isolate and re-instate the high energy electrical system</li><li>• Remove and install/ replace high energy electrical system components</li></ul>
01:00 PM	Lunch Break
02:00 PM	INT EV2 Written and Oral Assessment (IMI)
03:30 PM	Evening Tea Break
03:45 PM	Discussion/ Answer Session – INT EV2 Written and Oral Assessment (IMI)
05:00 PM	Session Ends



## **IMI INTERNATIONAL L3 AWARD IN ELECTRIC / HYBRID SYSTEM REPAIR AND REPLACEMENT**



## Level 3: Award In Electric / Hybrid System Repair and Replacement

### Who is this for?

These learners will have an interest in gaining the knowledge to work safely when carrying out repair activities on Electric/Hybrid vehicle high voltage systems.

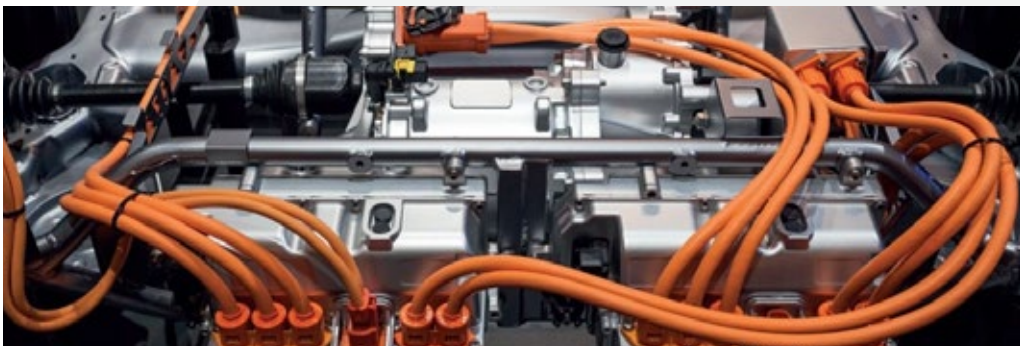
It is therefore designed for those people who may encounter electric/hybrid vehicles within a routine maintenance situation. It also contains the knowledge and skills required to work safely around a vehicle that may have had damage to its high energy/electrical system.

This Award sized qualification offers an introduction to this specialised industry sector which in addition to complimenting their current industry qualifications and experience, will enable them to continue to work safely within their role. These roles can include but are not exclusive to:

- Maintenance and repair technician.

### Who Might be Interested in Taking This Course?

Individuals interested in taking this course will need to possess appropriate **vehicle maintenance and repair knowledge and skills at level 3.**



## What Will The Learner Study as Part of This Qualification?

The content of this qualification has been designed to give the learners the knowledge and skills required to work safely on Electric/Hybrid vehicles whilst carrying out diagnostic, testing and repair activities. This may include vehicles that may have or had damage to their high energy/electrical system. It contains two mandatory units EV2.2 and EV3.

EV2.2 covers all of the skills and knowledge from IMI Level 2 Award in Electric/Hybrid Vehicles Routine Maintenance Activities and EV3 covers skills in:

- Working safely on an electric/hybrid vehicle.
- Using information to carry out the task.
- Carrying out repairs on high energy electrical systems.
- Recording information and making suitable recommendations.

As a result, learners successfully completing this qualification will acquire significant core knowledge and skills and the ability to remove and replace Electric/Hybrid vehicle high voltage components.

## Entry Requirements

In order to proceed with this qualification, candidates / learners must complete the following courses.

- IMI International L1: Award in Electric/Hybrid Vehicle Awareness
- IMI International L2: Award in Electric/Hybrid Vehicle Hazard Management for Emergency and Recovery Personnel

## Course Details

Duration : 2 days

Certificate : **IMI International L3 Award In Electric/Hybrid Vehicle System Repair and Replacement & MRC (Attendance)**

## Schedule - Day 1

Time	Course Description
09:00AM - 10:30 AM	<b>Course Module</b> <ul style="list-style-type: none"> <li>• Module 1: Workshop Operation Manual</li> <li>• Module 2: Replacement of Main Hybrid Battery</li> <li>• Module 3: Power Control Unit</li> <li>• Module 4: Hybrid Transmission Transaxle</li> </ul>
10:30AM - 01:00PM	<b>INT EV2.2 Practical Assessment (IMI)</b> Demo and practical of EV3 Inverter With Converter Assembly Remove And Replace Demo and practical of EV3 High Voltage Battery Remove and Replace Demo and practical of EV3 Hybrid Transaxle Overhaul
01:00PM - 02:00PM	<b>Lunch Break</b>
02:00PM - 05:00PM	Practical of EV3 Inverter With Converter Assembly Remove And Replace Practical of EV3 High Voltage Battery Remove and Replace Practical of EV3 Hybrid Transaxle Overhaul

## Schedule - Day 2

Time	Course Description
09:00AM - 12:00PM	Practical of EV3 Inverter With Converter Assembly Remove And Replace Practical of EV3 High Voltage Battery Remove and Replace Practical of EV3 Hybrid Transaxle Overhaul  <b>INT EV3 Practical Assessment (IMI)</b>
12:30PM - 01:30PM	<b>Lunch Break</b>
01:30PM - 05:00PM	<b>INT EV2.2 Written Assessment (IMI)</b>



# ADAS

## ADVANCED DRIVER ASSISTANCE SYSTEM AWARENESS PROGRAMME

## Aim Of The Programme

To create awareness on different types of ADAS technology available in the market and also different types of calibration tools / equipment in the market. This programme is also to educate the importance of ADAS calibration / reset as part of the repair process.

## Programme Description

Human negligence is a key factor in the number of road accidents. More and more vehicles are now equipped with advanced driver-assistance systems or better known as ADAS.

ADAS has been developed to automate, adapt and enhance vehicle systems for safety and better driving. Many forms of ADAS are already available on today's vehicles direct from the manufacturer or available as an after sales package.

This program is to create awareness and exposure for the purpose of having better understanding on the different ADAS systems and technologies that are available in the market.

## Modules

### What is ADAS?

- Various ADAS technologies in the market
- ADAS functions and roles
- Benefits and the importance of ADAS
- Terminology used by different vehicle manufacturers

### Vehicle Owners Manual

- ADAS features & specifications
- OEM information on ADAS safety tips handling

### OEM Workshop Manual

- Locating ADAS information
- OEM steps on remove & refit and calibrate/reset ADAS

### MRC Repair Methods

- How to locate ADAS information
- Understanding the symbols and ADAS calibration instructions

### ADAS Calibration (Demonstration)

- Basic Preparation on setup e.g., tools, data, frame etc
- Know-how to set the vehicle on the calibration system
- Know-how to perform the system calibration

## ■ Programme Benefits

Participants will understand and identify the increasing importance of ADAS on today's vehicles. This programme will educate participants the ADAS features in vehicle's manual and will be able to identify calibration requirements and OEM information. Participants will understand how ADAS calibration works through the programme.

## ■ Practical Assessment

- Participant is required to take the practical assessment

## ■ Target Participants

- Franchise and non-franchise repairer workshops, insurance companies, adjuster firms, automotive colleges students, government agencies

## ■ Course Details

Duration : 2 days course (1 day Theory, 1 day Practical)  
Claim : HRD CORP CLAIMABLE COURSE  
Certificate : IMI (PAC) & MRC (Attendance & Accomplishment)

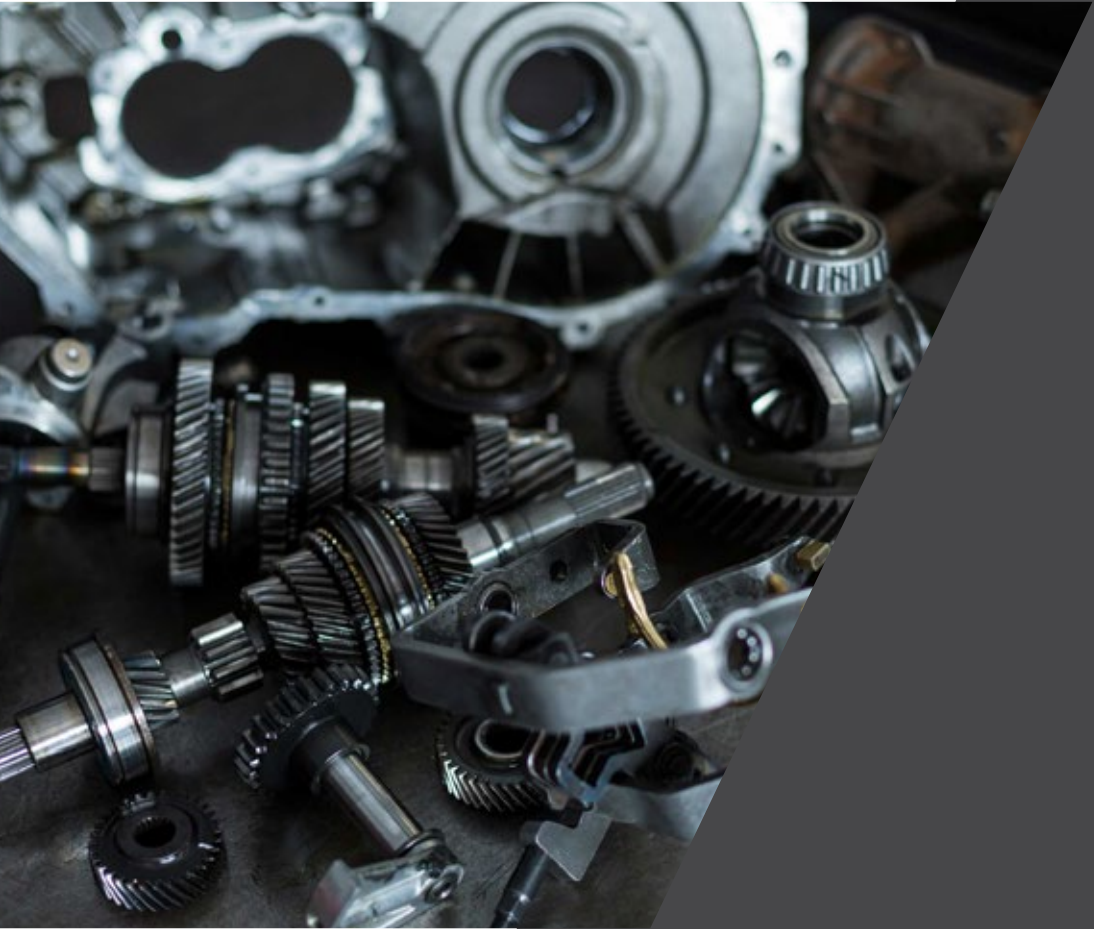


## Schedule - Day 1

Time	Course Description
8:30 AM	Arrival of participants
9:00 AM	Safety briefing Self & participant's introduction
9:15 AM	WHAT IS ADAS (Part 1)
10:30 AM	15 minutes Break
10:45 PM	WHAT IS ADAS (Part 2)
12:30 PM	Lunch Break
2:00 PM	VEHICLE OWNER'S MANUAL
3:30 PM	15 minutes Break
3:45PM	MRC REPAIR METHODS
4:30PM	Emphasize on key important notes
	Question & answer
5:00PM	End

## Schedule - Day 2

Time	Course Description
8:30 AM	Arrival of participants
9:00 AM	Review on yesterday modules Briefing in assessment process
9:15 AM	OEM WORKSHOP MANUAL
10:30 AM	15 minutes Break
10:45 PM	ADAS CALIBRATION (DEMONSTRATION)
12:30 PM	Lunch Break
2:00 PM	Assessment (Part 1)
3:30 PM	15 minutes Break
3:45PM	Assessment (Part 2)
5:00PM	Review on theory and practical assessment Assessment answer
	Question & answer
5:30PM	End



# INSURANCE POLICY AND PARTS IDENTIFICATION

## Aim Of The Programme

Provide a learning opportunity for those who are involved in the motor insurance and automobile repair industry to acquire the knowledge and skills that will enhance their competencies, skills and efficiency to meet their needs and challenges of their duty and tasks.

## Programme Description

The course consists of both theory and hands-on modules to develop skills and knowledge with the use of technology and the database is currently available to the industry.

## Programme Benefits

Participants will understand the underwriting of automobile insurance and the parts nomenclature that has been standardized for the Malaysian automotive collision repair industry.

Participant will understand vehicles body construction and material used in body construction, definition of franchise and OEM parts and general knowledge on vehicle repair process.

## Modules

### Malaysian Motor Insurance Industry and BNM/RH/GL/003-9

#### Malaysian Motor Insurance Industry

- Industry stakeholders in Motor Insurance Industry
- MRC's Primary Role in the Motor Insurance Industry
- A Basic Step-by-Step Motor Insurance Claim Process

#### Bank Negara Malaysia BNM/RH/GL/003-9

- Guidelines on Claims Settlement Practices
- Principles of Insurance

#### Understanding Motor Insurance Policy & Claim

- Private Car Comprehensive Motor Policy
- Type of Motor Insurance & Coverage
- Type of Motor Insurance Claim & Documents Required for Insurance Claim Submission

### Understanding Vehicle Construction

#### Car Body Design

- Vehicle Body Construction
- Different Vehicle Body
- e.g. Unibody, Body Over Frame, Space Frame
- Identification of Major Vehicle Body Section
- Type of Vehicle Sizes

#### Current Material Used In Vehicle Construction

- Materials Used on Modern Vehicle Structures
- Metallurgy Diagram

## General Knowledge On Vehicle Repair Process

### World Car Assessment Center

- Global NCAP, Euro NCAP, Asean NCAP and IIHS

### Car Repair Process

- Workshop Equipments & Usage
- Vehicle Repair Process Flow
- Key Area to be concerned before, during and after the repair

## Understanding Car Design & Parts Identification And Terminology

### Identification Of Body Parts And Panel Description

- Vehicle Body Part descriptions – Panels & Service Parts
- Standardisation on Parts Terminology used in an estimating system
- Definition of Franchise and OEM parts
- MET and Panel Parts Location and Terminology

## Practical Assessment

- Participants are required to be access on practical skills

## Target Participants

- Workshop Repairer (Owner, Manager, Supervisor, Auto Technician)
- Insurance Company (Manager & Assessor)
- Adjuster Firm (Manager & Adjuster)

## Course Details

Duration : 1 day course ( Theory and Practical Class )  
Claim : HRD CORP CLAIMABLE COURSE  
Certificate : IMI (PAC) & MRC (Attendance & Accomplishment)



## Schedule - Day 1

Time	Course Description
8:30 AM	Arrival of Participants
9:00 AM	Safety Briefing Self & Participants' Introduction
9:15 AM	MODULE 1 - MALAYSIAN MOTOR INSURANCE INDUSTRY & BNM/RH/GL/003-9
10:30 AM	15 minutes Break
10:45 AM	MODULE 2 - UNDERSTANDING VEHICLE CONSTRUCTION
12:30 PM	Lunch Break
2:00 PM	MODULE 3 - UNDERSTANDING CAR DESIGN & PARTS IDENTIFICATION AND TERMINOLOGY
2:45 PM	MODULE 4 - GENERAL KNOWLEDGE ON VEHICLE REPAIR PROCESS
3:30 PM	15 minutes Break
3:45 PM	Theory Assessment
4:30 PM	Emphasize on Key Important Notes Question & Answer
5:00 PM	End



# ESTIMATING & REPAIR METHODOLOGY



## Course Aim

Provide opportunity for motor insurance personnel to acquire knowledge and skills that will enhance their performance, skills and efficiency to meet their needs and challenges of this demanding industry.

## Course Descriptions

This is 3 days training programme where participants **MUST HAVE** claims handling and repair estimating experience. An added advantage will be given to the participants that also attended QAP 1 "MOTOR INSURANCE & PARTS IDENTIFICATION".

Day 1 & 2 is theory-based learning, and the 3rd day is a practical hands-on session where participant have to write estimates for vehicles repair. An assessment will be conducted, and participants are required to achieve the necessary results in order to be awarded the MRC / IMI certificate.

## Course Benefits

Participants will understand the underwriting of automobile insurance and the parts nomenclature that has been standardize for the Malaysian automotive collision repair collision repair industry.

Participant will understand vehicles body construction and material used in body construction, definition of franchise and OEM parts and general knowledge on vehicle repair process.

## Modules

### Collision Theory, Metallurgy And Car Body Design

#### Collision Theory

- Understanding Car Crashes and the impact
- Inertia, Deflection, Angle of Travel, Three Vehicle Section Principles

#### Metallurgy

- Materials Used on Modern Vehicle Structures

#### Car Body Design

- Vehicle Body Design and Shapes
- Vehicles Parts & Components Terminology

### Understanding Thatcham Times System (TTS)

#### Thatcham Times System (TTS)

- Understanding the background of Thatcham UK
- Understanding how TTS derived - process to research Thatcham Times
- Identifying Thatcham repair times provided in the estimating system

## TTS VS Repair Process Time Application

### MET Process & Time Application

- Understanding Franchise Flat Rate Manual
- Applying Opinion Time on M.E.T. (not covered by the TTS)
- Understanding Measuring Time

### Panel Process & Time Application

- Understanding Vehicle Construction & Material Usage
- Understanding Kink vs Bend
- Applying Panel Replacement / Repair Time  
Applying Opinion Time on Panel Repair

### Paint Process & Time Application

- Understanding paint time application (solid & metallic paint)
- Applying Opinion Time on paint
- Identifying vehicle painting process and colour blending

## JPJ Technical Application / Puspakom Check

### JPJ Technical Application & Guidelines

- Identifying types of repair to be eligible for JPJ Technical application
- Obtaining JPJ technical application latest forms
- Ensure proper documentations and filing after JPJ Technical approval

## Estimating Process and Appraisal Method

### Good VS Poor Repair Core Task & Supporting Operations

- Identify the core tasks and its supporting operations
- Identify the vehicle direct and indirect area
- Identify safety and replacement process
- Learn to use manual jobsheet to create an estimate

## Quality Inspection On Repair Stages

### Good VS Poor Repair & Quality Guidelines

- Conducting quality inspection on every repair stage
- Understanding the importance to repair accident vehicles back to road worthiness.

## Negotiation Skills / Create Supplementary

### Proper Method Of Method Of Negotiation Skill With Insurance / Adjuster Officer

- Create Supplementary
- Issuing Official Letter (if necessary)

## Practical Assessment

- Participants are required to be access on practical skills.

## Target Participants

- Workshop Repairer (Owner, Manager, Supervisor, Auto Technician)
- Insurance Company (Manager & Assessor)
- Adjuster Firm (Manager & Adjuster)

## Course Details

Duration : 3 days course ( 2 days Theory, 1 day Practical )

Claim : HRD CORP CLAIMABLE COURSE

Certificate : IMI (PAC) & MRC (Attendance & Accomplishment)

## Schedule - Day 1

Time	Course Description
8:30 AM	Arrival of Participants
9:00 AM	Safety Briefing Self & Participants' Introduction
9:15 AM	MODULE 1 - COLLISION THEORY, METALLURGY AND CAR BODY DESIGN
10:30 AM	15 minutes Break
10:45 AM	MODULE 2 - UNDERSTANDING THATCHAM TIMES SYSTEM (TTS)
12:30 PM	Lunch Break
2:00 PM	MODULE 3 - TTS vs REPAIR PROCESS TIME APPLICATION
3:30 PM	15 minutes Break
3:45 PM	MODULE 4 - ESTIMATING PROCESS AND APPRAISAL METHOD
4:30 PM	Emphasize on Key Important Notes Question & Answer
5:00 PM	End

## Schedule - Day 2

Time	Course Description
9:00 AM	Review on yesterday's modules MODULE 5 - QUALITY INSPECTION ON REPAIR STAGES
10:30 AM	15 minutes Break
10:45 AM	MODULE 6 - JPJ TECHNICAL APPLICATION / PUSPAKOM CHECK MODULE 7 - NEGOTIATION SKILLS / CREATE SUPPLEMENTARY
12:30 PM	Lunch Break
2:00 PM	Estimate exercise: Case study 1 and Case study 2
3:30 PM	15 minutes Break
3:45 PM	Vehicle Damage Assessment Video from Thatcham
4:30 PM	Emphasize on Key Important Notes Question & Answer
5:00 PM	End

## Schedule - Day 3

Time	Course Description
9:00 AM	Review on yesterday's modules Briefing on Assessment Process
10:00 AM	Theory Assessment Practical Assessment on TWO (2) Accident Vehicles
3:00 PM	Review on Theory and Practical Assessment Answers Question & Answer
5:00 PM	End



**MET**

# MECHANICAL ELECTRICAL TRIM

## Course Aim

Vehicle components (Mechanical, Electrical and Trim – M.E.T.) remove and refit is one of the key areas to ensure the vehicle is repaired safely and back to road worthiness. The participants shall understand how a vehicle system operates and verify the system functionality based on OEM recommended procedure.

During the M.E.T. dismantling process, the participant shall identify every single component until a screw, clip or fastener whether it is still usable, repairable or defects. In this programme the participant is developed to have ability to remove vehicle exterior trim, interior trim and body components without damaging other components and/or the vehicle body works.

Another role that will be taught in the program is that participants will know how to play to uphold the vehicle's integrity after M.E.T. parts have been refit.

Certain vehicle system needs to do calibration such as SRS, ESP after repair and participants will be taught the skills and knowledge to perform the calibration or to reset the system.

## Course Descriptions

This 2-day programmed is designed to give awareness of health, safety and legal requirement relating to the removal and fitting of MET components. In this programme participants are taught on how to select, check and use all the tools and equipment required to remove and fit these components.

The vehicle components will include: bumper cover (and associated components), headlamp (LED type), door handle (and associated components including door card / trim). This programme will teach participants the importance understanding of resetting vehicle components that require calibration as part of their repair process.

## Course Benefits

Participants will understand OEM Repair manual operation process, OEM repair procedure and vehicle system repair.

Participants will able to evaluate vehicle component, verify remove & refit proper procedure and precaution measure.

Enhance participants skills and knowledge on vehicle system reset, system calibration, standard operation procedures, precaution and warnings.



## Modules

### Body & Paints Operation Flow

- Understanding how a common Body & Paint workshop operates
- Practice the B&P Operation Flow
- Auto Body Technician / Panel Beater Duty & Responsibility

### Understanding OEM Body Repair Manual

- OEM Repair Manual Operation Process
- OEM Vehicle System and components

### Understanding Vehicle System Repair

- SRS /Air Bag reset steps
- ESC reset steps
- Lane Departure Assist system calibration
- ECU system Reset

### Collision Repair Fundamentals

- Understanding the Collision Theory, Car Crashes and Relationship of the forces involved in a collision

### Fundamentals OEM Repair Procedure

- Caution and warning
- Model information
- Standard Operation Procedures
- SRS airbags, hybrid electrical cars and high voltage vehicles

### Components And Parts Verification

- Evaluate the components or parts usable
- Remove & Refit procedure and precaution measure

## Practical Assessment

- Participants are required to be access on practical skills.

## Target Participants

- Workshop Repairer (Owner, Manager, Supervisor, Auto Body Technician, Panel Beater)
- Insurance Company (Manager & Assessor)
- Adjuster Firm (Manager & Adjuster)

## Course Details

Duration : 2 days course (1 day Theory, 1 day Practical)

Claim : HRD CORP CLAIMABLE COURSE

Certificate : IMI (PAC) & MRC (Attendance & Accomplishment)

## Schedule - Day 1

Time	Course Description
8:30 AM	Arrival of Participants
9:00 AM	Safety Briefing Self & Participants' Introduction
9:15 AM	BODY & PAINTS OPERATION FLOW COLLISION REPAIR FUNDAMENTALS
10:30 AM	15 minutes Break
10:45 AM	UNDERSTANDING OEM BODY REPAIR MANUAL FUNDAMENTALS OEM REPAIR PROCEDURE
12:30 PM	Lunch Break
2:00 PM	BODY AND REPAIR
3:30 PM	15 minutes Break
3:45 PM	JPJ TECHNICAL APPLICATION / PUSPAKOM CHECK
4:30 PM	Emphasize on Key Important Notes Question & Answer
5:00 PM	End

## Schedule - Day 2

Time	Course Description
8:30 AM	Arrival of Participants
9:00 AM	Review on yesterday's modules Briefing on Assessment Process
10:00 AM	Theory 25 questions Practical Assessment
3:00 PM	Review on Theory and Practical Assessment Answers Question & Answer
5:00 PM	End



# STRUCTURAL BODY REPAIR

## ■ Course Aim

This programme is designed to provide the widest scope and quickest opportunity for participants to be able to carry out vehicle damage repair to meet the urgent requirements of the Malaysian automotive repair industry.

Due to majority of the panel beaters still follow the old way to carry out the repair or replacement on the vehicle body structure. Unfortunately, they have overlooked that the body materials that used on current vehicles have changed tremendously such as High Strength Steel (HSS), Ultra High Strength Steel (UHSS) etc which requires new repair method and approach. Therefore, in this programme participants are taught the latest ways to perform the repair or replacement on the vehicle body structure.

The participants will be given comprehensive exposure and skills in reading the OEM vehicle's repair manual which are important for them to refer, especially on the vehicle body measuring and sectioning area.

It is aimed to enhance participants skills to create, assess, and approve accurate repair specifications that would ensure safe repairs, using appropriate and researched repair methods that will meet manufacturers' requirements to repair the vehicles back to pre-accident condition.

This programme also to ensure the car is repaired back to road worthiness and uphold the vehicle integrity, it mostly relies on panel beaters' right repair method. For example, a good and proper welding joint can ensure the quality of the after-repaired vehicle safety. This relates to the knowledge of panel beaters on welding "destructive test" and corrosion protection application.

## ■ Course Descriptions

This is a 2-days training programme consisting of theory and practical modules. This programme is designed to enhance participants skills and knowledge using approve OEM repair methods according to approve researched methods or manufacturer recommendations.

Participants are also exposed to new materials and ADAS installed functions on modern vehicles and the appropriate and safe repair methods. This programme also will enhance participants skills of body sectioning, welding and measuring.

## ■ Course Benefits

Participants will have the knowledge; understand and read OEM Body repair manuals. Able to carry out proper sectioning, welding and measuring according to OEM Body Repair manual. Understand the new material on modern vehicles and repair methods and also will know the importance of corrosion protection.

## Modules

### Body & Paints Operation Flow

- Understanding how a common Body & Paint workshop operates
- Practice the B&P Operation Flow
- Auto Body Technician / Panel Beater Duty & Responsibility

### Understanding OEM Body Repair Manual

- OEM Body Repair Manual Operation Process & Sectioning
- OEM Body Vehicle Measuring
- OEM Body Vehicle Welding Spot Area

### Body & Repair

- Material usage (metallurgy)
- Dimension and measurement
- Body panel, removing and sectioning
- Body panel, welding and joint
- Corrosion Protection Application

### Collision Repair Fundamentals

- Understanding the Collision Theory, Car Crashes and Relationship of the forces involved in a collision

### Fundamentals OEM Repair Procedure

- Caution and warning
- Model information
- Standard Operation Procedures
- SRS airbags, hybrid electrical cars and high voltage vehicles

### Jpj Technical Application / Puspakom Check

- JPJ Technical Application & Guidelines
- Identifying types of repair to be eligible for JPJ Technical application

## Practical Assessment

- Participants are required to be access on practical skills.

## Target Participants

- Workshop Repairer (Owner, Manager, Supervisor, Auto Body Technician, Panel Beater)
- Insurance Company (Manager & Assessor)
- Adjuster Firm (Manager & Adjuster)

## Course Details

Duration : 2 days course (1 day Theory, 1 day Practical)

Claim : HRD CORP CLAIMABLE COURSE

Certificate IMI (PAC) & MRC (Attendance & Accomplishment)

## Schedule - Day 1

Time	Course Description
8:30 AM	Arrival of Participants
9:00 AM	Safety Briefing Self & Participants' Introduction
9:15 AM	BODY & PAINTS OPERATION FLOW COLLISION REPAIR FUNDAMENTALS
10:30 AM	15 minutes Break
10:45 AM	UNDERSTANDING OEM BODY REPAIR MANUAL FUNDAMENTALS OEM REPAIR PROCEDURE
12:30 PM	Lunch Break
2:00 PM	UNDERSTANDING VEHICLE SYSTEM REPAIR
3:30 PM	15 minutes Break
3:45 PM	COMPONENTS AND PARTS VERIFICATION
4:30 PM	Emphasize on Key Important Notes Question & Answer
5:00 PM	End

## Schedule - Day 2

Time	Course Description
8:30 AM	Arrival of Participants
9:00 AM	Review on yesterday's modules Briefing on Assessment Process
10:00 AM	Theory 25 questions Practical Assessment
3:00 PM	Review on Theory and Practical Assessment Answers Question & Answer
5:00 PM	End



# **BODY & PAINT CUSTOMER SERVICE PROGRAMME**

## Aim Of The Programme

This programme is developed to equip customer facing staff with adequate knowledge and skill to be able to improve their day-to-day operations and productivity.

## Programme Description

Customer service is the act of providing support to both prospective and existing customers.

The prime concern of this program is to develop the participants to be excellent in customer service in the automotive sector.

The program is based on the real environment of the body & paint operation including case studies and practical situations.

## Modules

### Motor Insurance Procedures

- Types of motor insurance claim in Malaysia
- Motor insurance claim process flow
- Documents required to submit a motor insurance claim
- Overview of motor insurance claim industry stakeholders
- Government rules & regulations e.g. DOE, JKKP, OSHA, JPJ

### Body & Paint Workshop Operation Flow

- How a Body & Paints workshop operates
- Standard repair process flows:
  - Insurance claims
  - Cash repair customers
- Customer administration

### Vehicle Design & Technology Overview

- Vehicle body design & construction
- Parts terminology & location
- Materials used in vehicle construction
- New vehicle technologies

### Operation Manuals & Catalogues

- Parts descriptions & catalogues
- MRC repair manuals
- Workshop manuals
- Owner's manuals



## Programme Benefits

Teaching participants the best ways to serve and attend the customers professionally with the ability to communicate clearly with positive language through all possible situations.

This programme also teaches how to manage and handle daily operations efficiently and to have a deep knowledge of how their company's policies, procedures and standards.

### Stock Management

- Stock cycle time
- Stock ordering pattern

### Vehicle Repairshop License Application

- JPJ Workshop Registration Application
- PIAM PARS Application
- JPJ Technical Application (exercise)

## Practical Assessment

- Participant is required to take the practical assessment

## Target Participants

- Administrative level (admin executive, claim advisors, data entry staffs, clerks, front counter personnel and store assistants) from franchise and non-franchise repairer, workshops, colleges/ schools, government agencies etc.

## Course Details

Duration : 2 days course (Theory & Practical)  
Claim : HRD CORP CLAIMABLE COURSE  
Certificate : IMI (PAC) & MRC (Attendance & Accomplishment)

## Schedule - Day 1

Time	Course Description
8:30 AM	Arrival of Participants
9:00 AM	Safety Briefing Self & Participants' Introduction
9:15 AM	MOTOR INSURANCE PROCEDURES
10:30 AM	15 Minutes Break
10:45 AM	BODY & PAINT WORKSHOP OPERATION FLOW
12:30 PM	Lunch Break
2:00 PM	VEHICLE DESIGN & TECHNOLOGY OVERVIEW
3:30 PM	15 Minutes Break
3:45 PM	OPERATION MANUALS & CATALOGUES Emphasize on Key Important Notes
5:00 PM	Question & Answer
5:30 PM	End

## Schedule - Day 2

Time	Course Description
8:30 AM	Arrival of Participants
9:00 AM	STOCK MANAGEMENT
10:30 AM	15 Minutes Break
10:45 AM	VEHICLE REPAIRSHOP LICENSE APPLICATION
12:30 PM	Lunch Break
2:00 PM	Assessment
	Theory 30 questions & Practical
5:00 PM	End



## **WORKSHOP REGISTRATION & BODY STRUCTURE TECHNICAL APPLICATION PROCESS – AWARENESS PROGRAM**

## Aim Of The Programme

This program is to create awareness and exposure for the purpose of having better understanding on JPJ ruling which is available in the market now. Provide a well understanding about JPJ workshop registration and Vehicle Body structure Replacement Technical Application. This programme will educate the importance of JPJ Technical application and reduce unwanted risk during the body structure repair process.

## Programme Description

A half day programme to create awareness on JPJ ruling in Motor claims industry market that concern the workshop business operator and vehicle body structure repair approach.

## Modules

### JPJ Roles In Motor Claim Industry

- JPJ workshop registration
- JPJ Vehicle Body Structure Replacement
- Technical Application  
JPJ ruling functions and roles
- Benefits and the importance of JPJ workshop registration and Vehicle Body structure Replacement Technical Application

### JPJ Workshop Registration

- Application and basic preparation on JPJ workshop registration process
- Internal criteria filing and documentation  
(DOE, JKPP, council license, PIAM etc)

### JPJ Vehicle Body Structure Replacement Technical Application

- Application and submission of JPJ technical
- When should we apply JPJ Technical?
- Proper documentation of JPJ technical record

### Practical In Exercise Paper

- JPJ workshop registration
- JPJ Vehicle Body Structure Replacement
- Technical
- Application

## Programme Benefits

- Understand and identify types of ruling imposed by JPJ and its importance and benefits.
- Understand and study the JPJ workshop registration and Vehicle Body structure Replacement Technical Application requirement and process.
- It will definitely improve the cycle time of repair and speed up PUSPAKOM inspection requirement before invoicing the insurance company.

## Practical Assessment

- Participants are required to be access on practical skills

## Target Participants

- New comers and recruits for Franchise and non-franchise repairer workshops, insurance companies, adjuster firms, automotive colleges/ schools, government agencies
- Management Level : business owners, managers, supervisors, executives, officers
- Administration Level :Claim Advisors, Data Entry Clerk and store assistants

## Course Details

Duration : 1/2 day course ( Theory and Practical Class )  
Claim : HRD CORP CLAIMABLE COURSE  
Certificate : MRC Attendance

## Schedule - Day 1

Time	Course Description
8:15 AM	Arrival of Participants
8:30 AM	Safety Briefing Self & Participants' Introduction
8:45 AM	MODULE 1 - JPJ ROLES IN MOTOR CLAIM INDUSTRY MODULE 2 - JPJ WORKSHOP REGISTRATION
10:30 AM	15 minutes Break
10: 45 AM	MODULE 3 - JPJ VEHICLE BODY STRUCTURE REPLACEMENT TECHNICAL APPLICATION MODULE 4 - PRACTICAL IN EXERCISE PAPER
12:30 PM	Emphasize on Key Important Notes
	Question & Answer
1:00 PM	End



# VEHICLE BODY MEASURING PROGRAMME

## Aim Of The Programme

To create awareness on different types of vehicle body measuring systems in the market and the importance of vehicle body measuring in the vehicle repair process.

## Programme Description

This program is designed to create awareness and exposure to having a better understanding on the importance of vehicle body measuring. This programme will educate participants of the importance to perform measuring in order to identify the extent of damages or misalignment in the structure of the vehicle.

This program will also emphasize that measuring the vehicle structure helps to identify hidden damage. It is also used to develop a repair plan, ensure the correct repair process and provide documentation.

## Modules

### Why Measuring

- Understand the importance of vehicle body measuring
- Understand three section principles
- Understand types of vehicle body measuring systems

### OEM Vehicle Body Dimension Manuals

- Understand the difference between projected dimension and actual-measurement dimensions
- Read vehicle body measuring dimension
- Identify point-to-point and three dimensional measurements

### Measuring System (Demonstration)

- Understand measuring system – electronic and tram gauge
- Setup measuring system
- Read vehicle maker measuring system

## Programme Benefits

- Participants will learn the correct way of measuring, identifying various point-to-point measurement scenarios.
- Participants will understand the different vehicle dimensional specifications during the course and identify three different dimensional measurement processes.

## Practical Assessment

- Participant is required to take the practical assessment

## Target Participants

- Franchise and non-franchise repairer workshops, insurance companies, loss adjuster firms, automotive technician students, government agencies, emergency response employees
- Management Level: managers, supervisors, executives, officers
- Operation Level: technicians, technical assistants, auto body technicians

## Course Details

Duration : **Duration: 1 Day 1 Course (1 Day Theory & Practical)**

Claim : **HRD CORP CLAIMABLE COURSE**

Certificate : **IMI (PAC) & MRC (Attendance & Accomplishment)**

## Schedule - Day 1

Time	Course Description
8:30 AM	Arrival of Participants
9:00 AM	Safety Briefing Self & Participants' Introduction
9:15 AM	WHY MEASURING
10:30 AM	15 Minutes Break
10:45 AM	OEM BODY DIMENSION MANUALS
12:30 PM	Lunch Break
2:00 PM	MEASURING SYSTEM (DEMONSTRATION)
3:30 PM	15 Minutes Break
3:45 PM	Assessment Theory 30 questions & Practical
4:30 PM	Review on Theory & Practical Assessment Assessment Answer
	Question & Answer
5:30 PM	End





**TTS**

## **UNDERSTANDING THATCHAM TIME IN ELECTRONIC-CLAIM SYSTEMS – AWARENESS PROGRAM**

## Aim Of The Programme

For new comer to familiarize with the electronic-claim systems and Thatcham time data that parked inside the electronic system. It will improve their work efficiency and productivity and reduce supplementary submission.

## Programme Description

A half day programme for new comer and recruits in the industries to provide awareness on different types of electronic claim system in the market. this programme to educate the importance of TTS application in the data entry and how the system works on the MRC server.

## Modules

### Introduction Of Electronic Claim Systems

- Various types of electronic systems in the market
- Electronic functions and roles
- Benefits and the importance of electronic systems

### Understanding The Importance Of Accurate Vehicle Repair Times

- Awareness on how to improve estimate entry and reduce supplementary
- Better understanding of repair time accuracy

### TTS In Electronic Claim Systems

- Thatcham research center and MRC roles
- MET, Panel & Paint Times
- TTS in electronic systems and calculation format
- Understand TTS details report

### Data Entry In Electronic Systems

- Basic Preparation on setup e.g. mails, administrative claim cases etc.
- Know-how to data entry in electronic systems
- Know-how to perform checking report in electronic systems

## Programme Benefits

Understand and identify different type of electronic systems available in the market, the importance and benefits. Understand and study TTS data in the electronic systems format. Understand how TTS apply.

## Practical Assessment

- Participants are required to be access on practical skills

## Target Participants

- New comers to the Motor Claim Industry (business owners, managers, supervisors, executives, officers)
- Administrative level (claim advisors, data entry staffs and store assistants) from franchise and non-franchiserepairer workshops, insurance companies, adjuster firms, automotive colleges/ schools, government agencies

## Course Details

Duration : 1/2 day course ( Theory and Practical Class )  
Claim : HRD CORP CLAIMABLE COURSE  
Certificate : MRC Attendance

## Schedule - Day 1

Time	Course Description
8:15 AM	Arrival of Participants
8:30 AM	Safety Briefing
	Self & Participants' Introduction
8:45 AM	MODULE 1: INTRODUCTION OF ELECTRONIC CLAIM SYSTEMS
	MODULE 2: TTS IN ELECTRONIC CLAIM SYSTEMS
10:30 AM	15 minutes Break
10:45 AM	MODULE 3: UNDERSTANDING THE IMPORTANCE OF ACCURATE VEHICLE REPAIR TIMES
	MODULE 4: DATA ENTRY IN ELECTRONIC SYSTEMS (PRACTICAL)
12:30 PM	Emphasize on Key Important Notes
	Question & Answer
1:00 PM	End



# SIJIL KEMAHIRAN MALAYSIA

## Permohonan SKM Automotif Melalui Kaedah PTT Penilaian Amali

## Permohonan SKM Automotif Melalui Kaedah PTT Penilaian Amali

### Penyediaan Dokumen Untuk Pendaftaran

- Surat persetujuan permohonan SKM.
- Surat pengesahan pengalaman kerja (Dari majikan).
- Salinan kad pengenalan (Depan & belakang kertas A4).
- E-mel dokumen ke [training@mrc.com.my](mailto:training@mrc.com.my).
- Buat pembayaran kepada MRC Sdn Bhd.

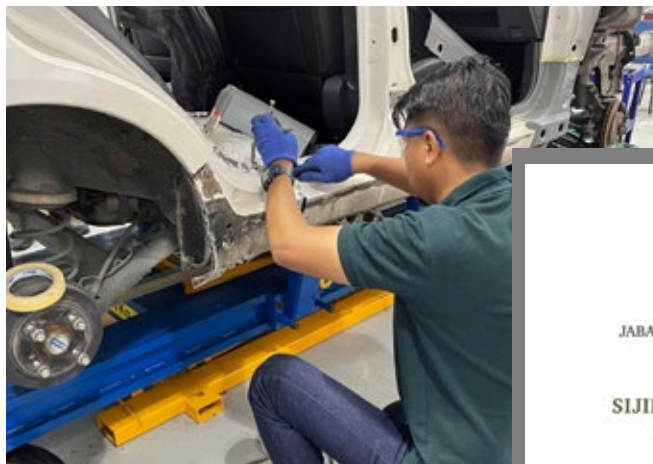
**Account Number : Maybank Banking Berhad 514196214759**  
**Swift Code : MBBEMYKL**

### Syarat Kelayakan

- Minimum 3 tahun pengalaman kerja dalam bidang yang dipohon.
- Masih bekerja dalam bidang yang dipohon.
- Rakyat Malaysia.
- Berumur 18 tahun dan ke atas.

### Kod Bidang SKM Automotif Yang Dipohon & Harga Per Individu

<b>TP-110-3 Tahap 3</b>	— Penasihat Tuntutan Kenderaan Kemalangan.
<b>K651-002-3:2017 Tahap 3</b>	— Perundingan Tuntutan Insuran / Takaful Kenderaan Bermotor.
<b>G452-006-3:2019 Tahap 3</b>	— Pembaikan Badan Kenderaan Automotif.



## Lokasi PTT Amali

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# Our Partners

## Domestic Partners



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The Federation Of Automobile Workshop  
Owners Association Of Malaysia

**ESnet**  
**Academy**<sup>®</sup>

## International Partners



**INSTITUTE OF THE  
MOTOR INDUSTRY**

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**Research**  
*Safer cars, fewer crashes*



**RCAR**

# Notes





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