M&H GROUP ACADEMY / 01 / FM00

PDR Foundations

The Complete Illustrated Learning Pack

Photo: M&H Group / training context

PHOTO-ENHANCED FOUNDATIONS MANUAL

Sixteen modules · Real workshop photographs · Original technical diagrams
Forty-eight module checks · Fourteen dedicated photographic studies + matched photos across the manual · Working glossary

Understand the theory. Read the dent. Plan the repair. Practise with purpose. Use the companion workbook, casebook, reference cards, forms and explained assessment to apply the lessons.

Learn with purpose
Read the explanation, study the photograph or diagram, answer the check and record the next learning action. Practical exercises require the stated equipment and supervision.

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US$35 one-time for the complete seven-PDF package. No videos. Equipment, individual coaching and technician certification are not included.

Contents Glossary

M01.3

Choose your learning route

You can complete the theory route without buying tools.

Route A — theory and decisions

Read the manual in order. Reproduce the diagrams in your own words, complete the paper activities and explain the module checks before opening the answer guide. Use the casebook to compare alternative decisions. Complete the final knowledge assessment and return to the specific lessons behind any errors.

This route requires the PDFs, a way to read them and somewhere to write. Printing is optional. It does not require a vehicle, tools, a training panel or a paid external video. The core explanations, exercises and answers are included in the package.

Route B — supervised panel practice

Use the same theory route, then add the workbook with an experienced PDR trainer, suitable equipment and a secured, approved training panel. The trainer establishes the physical setup and confirms what is a high, low and acceptable intervention. Do not substitute a customer's car for a training panel.

The workbook describes observable gates rather than a calendar deadline. Repeat a session when you cannot identify the response or explain the next step. A pause or referral is a correct outcome when the conditions are uncertain.

Keep two records

Record knowledge separately from practical observation. “I can explain a high spot” and “I can locate and control one on this panel” are different statements. Do not merge them into a single completion tick. The workshop forms provide space for both your account and a trainer's observations; an empty trainer field is not approval.

Progress rule
Reading ahead is allowed. Performing a physical exercise ahead of its prerequisites is not.

Photo: M&H Group

From reading to observation

Name the lamp, reflected band and panel. Then explain which checks are still needed before physical practice.

Contents Glossary M01 answers High Low

M04.1

Name the shape you are observing

A clear description comes before a repair pattern.

Low, high and crown

A **low** lies below the intended local surface profile. A **high** lies above it. A **crown** is a raised region associated with surrounding deformation; it need not be a neat, complete ring. These descriptions rely on a reference profile and observation, not on a universal rule about whether reflected stripes are close together.

The intended profile may already be curved. A vehicle panel is not necessarily meant to be flat. Compare the affected area with appropriate undamaged references and the component's designed shape. Do not remove a legitimate bodyline because it resembles a high under one view.

What you will learn

You will label known geometric features, record more than dent width, and separate what you can observe from what needs further evidence. That distinction prevents technical-sounding guesses from becoming instructions.

Use a map, not a label alone

A useful map records the visible low, any verified high or crown, the direction and extent of a crease, nearby panel features, access constraints and reference views. Mark uncertainty with a question rather than shading every surrounding area as a crown.

“Pressure zone” and “tension” are often used in workshop discussion. They can express a repairer's interpretation, but an uncalibrated reflection is not a stress measurement. For a beginner plan, write the observable geometry and the trainer's approved intervention rather than pretending the map gives a complete internal stress field.

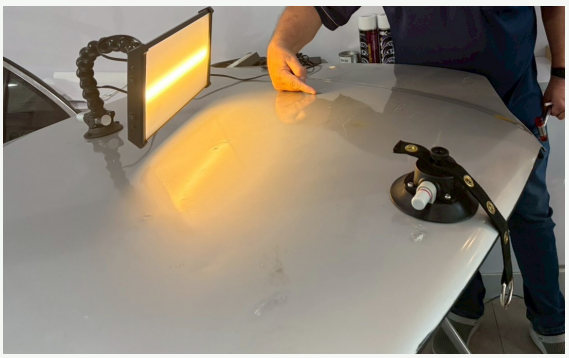

Photo: M&H Group

Read beyond a small patch

Locate the reflected band within the larger panel. Do not treat a bright patch, bodyline or visible scratch as an automatically classified high or low.

M05.1

Your light is an observation system

The panel, light and eye work together.

What you are actually looking at

A glossy panel reflects a pattern from a light or board towards the observer. Changes in local surface orientation change which part of that pattern reaches the eye. For a simple reflected ray, the angle of reflection equals the angle of incidence, measured relative to the local surface normal. This geometric relationship is not a direct dent-depth scale.

The apparent pattern depends on the board, panel and viewpoint. Moving your head or the light can change the image even when the panel has not changed. A convincing before/after comparison therefore needs controlled viewing conditions.

What you will learn

You will explain the role of the three elements, establish a repeatable view, and use a cross-view to challenge an initial interpretation. You will also learn why a light/dark boundary must not automatically be called the deepest point.

Define your reference

Begin with a trainer-approved panel and an undamaged region whose intended shape is understood. Establish an orientation label, a comfortable eye position and a light/board position. Record enough detail to return to that arrangement. Keep the light secure; do not let it rest where tool input or a cable can move it.

Important distinction
The diagrams are explanatory schematics; the added photographs are context views. Neither provides calibrated depth data or establishes a universal bright-area or stripe code for highs and lows.

Photo: M&H Group

Light source ≠ reflection

The lamp is the object above the panel. The warm band on the panel is its reflection. Their relative positions and the observer's viewpoint matter. See PS03.

Contents Glossary M05 answers Cross-view Local surface normal

PS02

The viewpoint is part of the setup

PHOTO STUDY 02 / Links: M05.2–M05.5

A / seated observation

Photo: M&H Group

B / lower viewing position

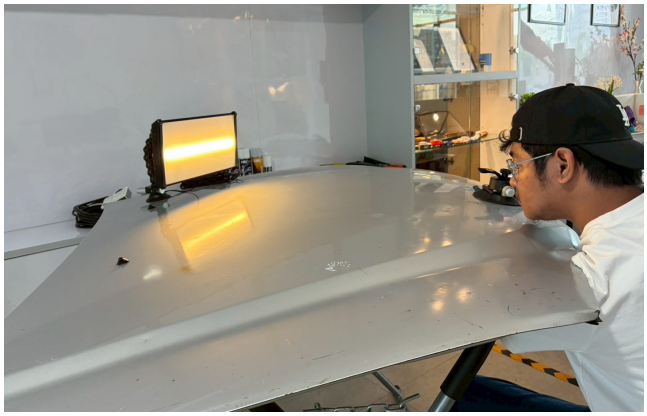

Photo: M&H Group

These are two actual training photographs, not a controlled before/after experiment. Their framing and observation geometry differ. The sequence and intervening work are not established by this pair.

What to notice

Compare the apparent width and position of the warm reflected band, the camera's view of the panel and the observer's position. Describe the visible differences without claiming that one panel is more repaired.

Build a valid comparison

For your own approved exercise, record the lamp position, observer position, panel orientation and stage. Compare the unloaded result from recoverable views. If a view changes, state the change rather than treating the pictures as equivalent.

Worked response
“The reflected band appears different in these views” is supported. “The dent became shallower between A and B” is not established. See the optical schematic in M05.2 for the relationship behind the observation.

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Working glossary

Alphabetical definitions and lesson links.

A–B–A check
Record baseline A, deliberately change one viewing variable for B, then restore A. It helps separate viewing effects from surface change.

Lesson M05

Adhesion
Attachment between materials, such as adhesive and tab/surface or a coating and its underlying system. Unknown coating adhesion cannot be assumed sound.

Lesson M12

Alloy and temper
An alloy has a specified combination of elements. Temper describes a processing condition, especially for aluminium, such as work hardening or heat treatment. The broad label “aluminium” does not establish either.

Lesson M03

Backside protection
Coatings and protection on the non-visible side that may require inspection or restoration after contact or access work.

Lesson M07 Lesson M14

Blending
A family of PDR techniques using controlled top-side impacts to influence surrounding shape or raised transitions. It may address a crown or refine the transition to the intended profile. Unlike repaint blending, it acts on panel geometry; the target and input still require skilled assessment.

Lesson M10

Bodyline
A designed panel feature that forms part of the intended geometry. Do not flatten it merely because it appears prominent in a reflection.

Lesson M04 Lesson M13

Cavity wax
A protective product used in specified locations and processes. Availability of a generic wax does not establish suitability for every vehicle.

Lesson M07

Coating history
What is known about the existing finish, previous work and inspection findings. Appearance alone does not establish the full history.

Lesson M03 Lesson M12