

Automotive Body Repair and Paint Work

LEVEL-IV

Based On October 2023, Curriculum Version II,



Module Title: Providing Technical Guidance Module code: <u>EIS BRP4 M01 1023</u> Nominal duration: 80Hour Prepared by: Ministry of Labor and Skills

> October, 2023 Addis Ababa, Ethiopia

ACKNOWLEDGMENT

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Acronyms

CP-HR ------Certified Professional – Human Resource

CIT -----Certified Instructional Technologist

CPTD ----- Certified Professional in Talent Development

LMS----- Learning Management System

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Introduction to the Module

This module covers the competence required to access and interpret technical information, assist staff with service/repair work, provide technical information to staff, and facilitate continuous education

This module covers the units:

- Assist staff with service/repair work
- Provide technical information to staff
- Facilitate continuous education of self and others

Learning Objective of the Module

- Assisting staff with service/repair work
- Providing technical information to staff
- Facilitating continuous education of self and others

Module Instruction

For effective use this modules trainees are expected to follow the following module instruction:

- 1) Read the information written in each unit
- 2) Accomplish the Self-checks at the end of each unit
- 3) Perform Operation Sheets which were provided at the end of units
- 4) Do the "LAP test" giver at the end of each unit and

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Unit One: Assist Staff with Service/Repair Work

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

• Use advanced technical competence

This unit will also assist you to attain the learning outcomes stated in the cover page.

Specifically, upon completion of this learning guide, you will be able to:

• Using advanced technical competence

1.1. Use advanced technical competence

As a Staff Assistant, you will provide administrative & clerical support to several groups within the section and provide backup to the Section Office. This primarily is an administrative support position, requiring a solid customer service background, strong organizational skills and flexibility in the performance of the job. You will be a member of the Business Administration Section and report to the Business Administration Manager.

What is a service / repair manual? It is Book with detailed information on how to repair a vehicle.

Working without an auto repair manual is big mistake.

Ever trace a short circuit without the correct wiring diagram or tightening cylinder head bolts unknowingly the torque specification probably not. That is why having the manufacturers auto repair information in hands reach is so important. Whether you are an experienced automotive technician, or an owner who likes to do car maintenance and repair on your own, the correct service and repair information can be the most important addition to your tool box. Auto repair manuals include a wide variety of information such as wiring schematics, torque specifications, diagnostic trouble codes, and repair and replace procedures, step by step diagnostic guides and a lot more.

Types of service manuals include:

- manufacturer's manuals
- specialized manuals
- general repair manuals

Manufacturer's Manuals

• Also called factory manuals

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• Published by a vehicle's manufacturer

Each manual covers a specific vehicle produced by the manufacturer during a given model year

Specialized Manuals

- Cover only specific repair areas
- Produced in several volumes, each covering one section of the vehicle such as engines, body components, or electrical systems, power system units.
- Published by vehicle manufacturers or aftermarket companies.

General Repair Manuals

- Published by companies other than the major vehicle makers
- Some of these companies include:
 - ✓ Mitchell Manuals
 - ✓ Motor Manuals
 - ✓ Chilton Manuals
- Not as detailed as factory manuals
- One set may include data an all American cars produced for several years.
- More economical to purchase than factory manuals

Service Manual Section

- A service manual is divided into sections such as:
 - \checkmark general information
 - ✓ engine
 - \checkmark transmission
 - ✓ electrical
- Locate the proper service manual
- Turn to the table of contents or the index
- Use the page listings given at the beginning of each repair section
- Read the procedures carefully
- Study the manual illustrations closely

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Service Publications

- A service manual is just one kind of book that contains technical information on a vehicle
- Other types, called service publications, include:
 - ✓ owner's manuals
 - \checkmark flat rate manuals
 - \checkmark technical bulletins

Owner's Manual

- Small booklet given to the purchaser of a new vehicle
- Contains basic information on various subjects related to automobile ownership, such as:
 - \checkmark starting the engine
 - \checkmark maintaining the car
 - \checkmark jacking the car up safely
 - \checkmark operating vehicle accessories

Flat Rate Manual

- Used to calculate how much labor to charge the customer for a repair
- Contains an estimate of how much time a specific repair should take
- Time estimate can then be multiplied by the shop's hourly rate to find the labor charge

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Self-Check -1

Part One: Short Answer

Write the short answer on the space provided

1. W	rite the	types	of service	manuals
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2. What are the basic information on various subjects related to automobile ownership, such as:

2		
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Unit Two: - Providing Technical Information

This unit to provide you the necessary information regarding the following content coverage and topics:

- Make technical information
- Communicate technical information
- Facilitate training and education opportunities

This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Making technical information
- Communicating technical information
- Facilitating training and education opportunities

2.1. Making technical information

Technical Bulletins

- Help the technician stay up-to-date with recent technical changes, repair problems, and other service-related information
- Usually stored in a binder, or stored electronically on a shop computer for technicians to access
- Published by auto manufacturers and equipment suppliers

Service manual sections

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INTRODUCTION How to Use this	Manual	General Info	i
This manual is d up with one of each section wit page can also b	livided into 15 sections. The first page of each section is marked with a black tab that lines the thumb index tabs on the front and back covers. You can quickly find the first page of houl looking through a lill table of contents. The symbols printed at the top corner of each e used as a quick reference system.	Special Tools	tools
Each section inc 1. A table of • Parts d	ludes: contents, or an exploded view index showing: isassembly sequence.	Specifications	specs
Bolt tor Page re 2. Disassemb	rques and thread sizes. eferences to descriptions in text. Jy/assembly procedures and tools.	Maintenance	outse
 Inspection Testing/tro Repair. Adjustment 	 Inspection. Testing/troubleshooting. Repair. 		阖
Special Informat	ion	Engine Electrical	₹
	Indicates a strong possibility of severe personal injury or loss of life if instructions are not followed.	Cooling	*
NOTE:	CUTION: Indicates a possibility of personal injury or equipment damage if instructions are not followed. NOTE: Gives helpful information to make the lob easier.		150
CAUTION: Detai operations are some specific se	Ied descriptions of standard workshops procedures, safety principles, and service not included. Please note that this manual does contain warnings and cautions against privice methods which could cause PERSONAL INURY, or could damage a vehicle or make it inderstand that there warnings cannot rever all conveniend wase.	Emission Controls	
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General Information

- Helps the technician with a vehicle's identification, basic maintenance, lubrication, and other subjects
- Vehicle identification number (VIN) is found in this section
 - \checkmark useful when ordering parts
 - \checkmark Contains information such as engine type, transmission type, and model year.

VIN Locations and Decoding

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2.2. Communicating technical information

How do you communicate complex technical information in a clear and concise way?

Know your audience

Before you start communicating technical information, you need to know who you are talking to, what they already know, what they need to know, and how they prefer to receive information. This will help you tailor your message to their level of technical expertise, their goals and pain points, and their communication style. For example, if you are talking to a decision-maker who is not very technical, you might want to focus more on the business outcomes and benefits of your solution, rather than the technical features and specifications. On the other hand, if you are talking to a technical expert who is interested in the details, you might want to use more technical terms and provide more evidence and data. You can also ask your audience questions to assess their knowledge and interest, and adjust your communication accordingly.

Simplify your language

One of the key skills for communicating technical information is to simplify your language without losing accuracy or clarity. This means avoiding jargon, acronyms, and technical terms that your audience might not understand, or explaining them clearly if you have to use them. It also means using short sentences, active voice, and simple words, rather than long sentences, passive voice, and complex words. For example, instead of saying "The device utilizes a patented technology that enables the optimization of the performance parameters", you could say "The device has a special feature that

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makes it work better". Simplifying your language will help you avoid confusion and misunderstanding, and make your message easier to follow and remember.

Use visuals and examples

Another way to communicate technical information more effectively is to use visuals and examples that support your message and illustrate your points. Visuals, such as graphs, charts, diagrams, photos, or videos, can help you show rather than tell, and make your information more engaging and memorable. Examples, such as case studies, testimonials, stories, or analogies, can help you demonstrate the relevance and value of your information, and connect with your audience on an emotional level. For example, instead of just describing how your solution works, you could show a video of how it solved a similar problem for another customer, or use an analogy that compares it to something familiar to your audience. Using visuals and examples will help you appeal to different learning styles and preferences, and make your information more relatable and persuasive.

Organize your information

To communicate technical information in a clear and concise way, you also need to organize your information in a logical and coherent way. This means having a clear structure, a main point, and supporting points for your message, and using transitions, headings, and summaries to guide your audience through your information. It also means prioritizing and highlighting the most important and relevant information, and eliminating or minimizing the less important or irrelevant information. For example, you could use the AIDA model (Attention, Interest, Desire, Action) to structure your message, and use the inverted pyramid technique (start with the most important information and end with the least important information) to prioritize your information. Organizing your information will help you avoid information overload and confusion, and make your message more focused and clear.

Get feedback and improve

Finally, to communicate technical information effectively, you need to get feedback and improve your communication skills. This means seeking feedback from your audience, your colleagues, or your manager, and using it to evaluate and refine your message and delivery. It also means practicing your communication skills regularly, learning from your mistakes, and seeking opportunities to improve your technical knowledge and skills. For example, you could ask your audience for their questions, comments, or suggestions after your communication, and use them to identify and address any gaps or misunderstandings. You could also practice your communication skills with a peer or a mentor, and ask them for constructive criticism and advice. Getting feedback and improving will help you enhance

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your communication effectiveness and confidence, and build stronger relationships with your prospects and customers.

2.3. Facilitating training and education opportunities Introduction to Facilitation

Facilitation is a technique used by trainers to help learners acquire, retain, and apply knowledge and skills. Participants are introduced to content and then ask questions while the trainer fosters the discussion, takes steps to enhance the experience for the learners, and gives suggestions. They do not, however, do the work for the group; instead, they guide learners toward a specific learning outcome.



What's the difference between a trainer and a facilitator?

Role	Focus	Expertise	Approach
Trainer	Transfers knowledge and skills	Expert in a subject matter	Delivers lectures and presents information
Facilitator	Creates an environment for learners to discover and build knowledge	Expert in creating inclusive and collaborative learning environments	Uses exercises to encourage critical thinking and discovery

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What makes a good training facilitator?

Skills

Excellent communication

Training facilitators must communicate complex concepts and ideas. They also should know how to adapt to different communication and <u>learning styles</u> and engage with them in a friendly, direct way.

Strong organizational and time management skills

Facilitators plan and organize training sessions, ensure all materials are available, and that training runs smoothly. They should also manage their time effectively, keeping the training on track.

Flexibility and adaptability

A training facilitator must adapt to learners' changing needs and circumstances to ensure practical training. They may change the training content, alter the format, or adjust how they teach.

Interpersonal skills

Facilitators should build rapport and positive relationships with learners. They should also know how to create a welcoming and inclusive environment.

Qualifications

Relevant education or certification

Ideally, a training facilitator should have a degree in education, <u>instructional design</u>, or a related field that provides a strong foundation in learning and development.

Some organizations require facilitators to have a mix of the following certifications:

Certified Professional – Human Resource (IPMA-CP)

Certified Instructional Technologist (CIT)

Training and Facilitation Certificate from the Association for Talent Development

Certified Professional in Talent Development (CPTD)

Experience in training and facilitation

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Facilitators should have practical experience designing and delivering training programs and leading group discussions. Job experience in human resources management, organizational psychology, or education are helpful additions to a training facilitator's resume.

They should also have hands-on experience using a Learning Management System (LMS).

Strong subject matter expertise

Even though a training facilitator may be someone other than a subject matter expert, they should know about adult learning. It's also essential that they can work with subject matter experts to develop relevant, accurate training materials.

Responsibilities

Developing training materials and curriculum

Training facilitators identify a program's goals, learning paths, and corporate objectives. They also work closely with trainers to design and create relevant training materials.

Say you were building a <u>customer service training</u> program for your company. Your training facilitator may:

Interview employees and managers to assess training needs

Develop a training curriculum

Source expert customer service reps or managers to develop materials

Produce a mix of materials and exercises to build the learning experience

Launch the program for employees

Calculate and report training costs to stakeholders

Gather feedback from learners, instructors, and managers

A training facilitator will also research and recommend learning equipment, like an LMS, to deliver programs most effectively.

Delivering training sessions

Facilitators lead training sessions, whether in-person or online. They use lectures, group discussions, and hands-on activities to ensure everyone is engaged.

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For example, a trainer might guide a group through various activities to promote collaboration during a team-building workshop. They may use role-playing or simulations to accomplish the workshop's goal.

Read more: eLearning Content: 24 Types to Include in Training

Assessing training effectiveness

During training, a facilitator monitors learners' progress and assesses the program's effectiveness. They may use quizzes and assessments to evaluate whether the activity meets the organization's needs.

Trainers can use WorkRamp to track learners' quiz results. For example, they could see how many people passed the quiz, how many scored at different levels, and how long it took. Then use that data to improve the course material.

Providing ongoing support

The training facilitator helps learners even after the program. For example, if learners need additional support, the facilitator can create a resource library that people can access after completing training.

The library may have handouts from a previous workshop, templates, and checklists learners can use to execute projects. In addition, the facilitators themselves may answer questions and provide support as needed.

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Self-check-2

PART ONE: SHORT ANSWER

Write the short answer on the space provided

1. What's the difference between a trainer and a facilitator?

2. How do you communicate complex technical information in a clear and concise way?

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