

WARNING:

The "145-146 - INSTRUCTIONS FOR REPAIR" manual refers to both models according to the following logic:

for the parts in common, the information refers to model 145, while for the parts specific to model 146 special pages, or, where necessary, whole groups, have been added.

For further details refer to the indexes (blue cards) at the beginning of each group.

INTRODUCTION

The "145-146 - Repair Instructions" Manual is composed of three volumes as follows:

- Volume I
 - Technical Data;
 - Engines;
 - Mechanical Groups.
- Volume II
 - Heating-Ventilation;
 - Bodywork.
- Volume III
 - Electric system;
 - Electrical system diagnosis.

For overhauling engines and mechanical groups refer to the following manuals:

- PA49360000000 REPAIR INSTRUCTIONS - ENGINE OVERHAUL.
- PA49420000000 REPAIR INSTRUCTIONS - OVERHAULING MECHANICAL GROUPS.

In order to facilitate consultation, the structure of the manual mirrors the functional groups already defined for the "Repair Flat-rate Manual" in use by Alfa Romeo Authorized Service Network.

The characteristic data and the tables for vehicles identification are contained in the "Technical Data" at the beginning of Volume I.

The "Model identification" tables should be consulted before carrying out repair work in order to identify the model of the vehicle, the engine size and the groups which form the vehicle.

How to use this manual

The aim of this manual is to supply the Alfa Romeo Service Personnel with a tool enabling them to rapidly identify faults and to render the corrective interventions precise and efficient.

The manual shows the procedures relative to the removal and refitting and dismantling operations and the checks relative to the various groups forming the vehicle.

The procedures are illustrated in detail as are the procedures for using the tools. An appropriate symbology and explanatory texts next to the fundamental technical drawings make a complete and rapid consultation of the manual possible.

The procedures illustrate complete component disassembly procedures and should only be carried out in their entirety when absolutely unavoidable. The procedures for "assembly" and "refitting" are normally obtained by reversing the procedure followed for disassembly or removal in reverse and only the reassembly procedures which are significantly different are illustrated.

For information relative to the electrical systems on-board the vehicle refer to section 55 "ELECTRIC SYSTEM" and to the successive 55 "ELECTRIC SYSTEM DIAGNOSIS" which gives the wiring diagrams and the description of each function, the connector tables, the location of the components, the tables for fault diagnosis and the technical data for checking the components.

All the information contained in this manual is updated at the time of publication.

Alfa Romeo reserves the right to make any modifications to its products that it deems necessary without warning. However the technical information and updates to this manual will be supplied as soon as possible.

Symbology

A specific symbology has been used in this manual to permit a rapid identification of the main technical information supplied.

The list of symbols is given below.

	removal/disassembly			exhaust
	refitting/re-assembly			Lubricate only with engine oil
	tighten to the torque			left-hand thread
	caulk nut			torque for tightening in oil
	adjustment/regulation			engine r.p.m.
	visual check			ovalization
	lubricate			taper
	weight difference			eccentricity
	angular value			flatness
	pressure			diameter
	temperature			linear dimension
	brake system air purge			parallelism
	surfaces to be treated			service with grease
	interference			heating temperature
	play			seal
	intake			service with engine oil
				grease
				CAUTION!
				WARNING!

Warnings for the operator

All the operations must be carried out with the greatest care to prevent damage occurring to the vehicle or persons.

- The use of Alfa Romeo specific tools are indicated for some procedures. These tools must be used to ensure safety and to avoid damaging parts involved in the procedure.
- To free parts which are solidly stuck together, tap with an aluminium or lead mallet if the parts are of metal. Use a wooden or resin mallet for light alloy parts.
- When dismantling ensure parts are marked correctly if required.
- When refitting lubricate the parts, if necessary, to prevent seizing and binding during the initial period of operation.
- Using adhesive paper or clean rags cover those parts of the engine which, following disassembly, present openings which may allow dust or foreign material to enter.
- When refitting, the tightening torques and adjustment data must be respected.
- When substituting the main component(s) the seal rings, oil seals, flexible washers, safety plates, self-locking nuts and all worn parts must also be replaced.
- Avoid marking the internal coverings in the passenger compartment.

Substitution of groups or disconnected parts must be carried out using original spare parts only. Only in this way can the suitability and perfect operation of each organ be guaranteed.

- The words **CAUTION** and **WARNING** accompany those procedures where particular care should be taken to prevent damage occurring to people or vehicle parts.



CAUTION:
used when insufficient care could cause damage to people



WARNING:
used when insufficient care could cause damage to the vehicle or its component parts.

- The safety regulations applied to workshops should be respected. Where necessary the manual also lists the specific precautions to be taken to prevent dangerous situations from arising.



When using chemical products follow the safety indications given on the safety cards which the supplier is obliged to deliver to the user (in Italy in compliance with D.M. n.46/1992).

NOTE:

It is possible that for certain subjects were not completed in time for printing. However these subjects are given and highlighted in the indices of the single groups. It is the duty of the Technical Services to supply documentation regarding these subjects as soon as possible through updates or "Technical Bulletins".

