

**BY ORDER OF THE COMMANDER
AIR FORCE MATERIEL COMMAND**



**AIR FORCE MATERIEL COMMAND
MANUAL 25-1**

6 JANUARY 2007

Logistics Staff

REPAIR PARTS KITS USERS MANUAL

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-publishing website at www.e-publishing.af.mil for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: AFMC/A4YR
Supersedes AFMCMAN25-1, 3 March 1997

Certified by: AFMC/A4Y (Mr. Ronald Rosenthal)
Pages: 14

This manual provides policy and procedures for the logistics management of repair parts kits. Related publication is Technical Order (TO) 00-25-200. This manual applies to all Air Logistics Centers (ALC) Directorates of Financial Management (FM), and Product Directorates. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance AFMAN 37-123 (will convert to AFMAN 33-363), *Management of Records*, and disposed in accordance with the Air Force Records Disposition Schedule (RDS) located at <https://afrims.amc.af.mil/>.

SUMMARY OF CHANGES

This revision replaces AFMAN 67-1 with AFMAN 23-110; AFR 71-4 with AFJMAN 24-204; CRF title 49, parts 100-189 with parts 100-199; MIL STD-749 with MIL STD-965; and D062/D041 with D200A.1.2.

Chapter 1

INTRODUCTION

Section 1A—Definition, References, Abbreviations, Acronyms and Terms

1.1. Definition. A repair parts kit is a group of parts or materials, identified as one line item, used to restore an assembly or subassembly to a serviceable condition. Time Compliance Technical Order (TCTO) kits and crash battle kits are not repair parts kits and are not affected by this manual. Parts and materials selected for inclusion within repair parts kits are procured, stocked, requisitioned, and used as one line item. [Attachment 1](#) provides a glossary of abbreviations used throughout this manual.

1.2. References, Abbreviations, Acronyms and Terms. See [Attachment 1](#).

Section 1B—Responsibilities for Kits Management

1.3. Responsibility of AFMC, ALCs, and Contractors. HQ AFMC/A4 will be responsible for the interpretations of this Manual and for the overall policy associated herein. ALCs are expected to manage, review and utilize kits in the most practical and “Smart Business” approach. Each ALC should issue supplemental instructions to those contained herein (with HQ AFMC concurrence), which reflects the difference in materials managed by them.

1.3.1. ALC/GBM will be responsible for overall center policy, and will assign a repair parts kit monitor who will be responsible for serving as the focal point for all aspects of repair kit management. These person/persons will ensure compliance with this manual. They will periodically review the following:

1.3.1.1. The repair parts kit program and recommend improvements.

1.3.1.2. Responsible for coordination of inter-directorate activity on repair parts kits.

1.3.1.3. Responsible for the chairing of a panel, of the various activities outlined within this manual/deemed necessary.

1.3.1.4. When and where appropriate other services managers and contractor representative are to be included to conduct kit reviews.

1.3.2. ALC/GBM policy OPR will be responsible for providing sufficient information to the System Program Manager (SPM) or appropriate Technical Activity so that they may:

1.3.2.1. Ensure all participatory Engineers/Equipment Specialists (ES) engaged in any aspect of repair parts kit development, are well versed in the purpose, development, use and refinement of repair parts kits.

1.3.2.2. Review each Technical Order Compliance/Engineering Change Proposal (TOC/ECP) issued on prime equipment to determine impact on kit contents and take necessary action.

1.3.2.3. Initiate request through the Production Management Activity for sampling of parts kits component usage by Technology Repair Center (TRC) when required to evaluate kit contents.

- 1.3.2.4. Notify kit users at using command Air Force bases of revisions to kit components through the technical order system, illustrated parts breakdown (IPB), technical manuals, and appropriate stock list change actions.
- 1.3.2.5. Notify appropriate Maintenance Activity personnel of pending buy decisions upon receipt of information from the inventory management specialist (IMS) that requires validation of replacement factors, etc.
- 1.3.3. ALC Production Management Activity will request and receive parts kit usage data from the TRC when requested by the ES. Add a line item to a pending repair contract or modify an existing repair contract if component usage data is required for kits used by repair contractors.
- 1.3.4. ALC Item Management Activity will notify the appropriate ES of pending buy upon receipt of data level or buy notices. Recommend advising the gaining IMS inventory control point (ICP) of items removed from kits and provides annual requirements.
- 1.3.5. ALC Maintenance Activity will notify the managing ES when new repair parts kit development or revision of an existing kit is needed to correct uneconomical use of repair parts kits. Ensure shop personnel are oriented in the use of both line items and repair parts kits. Initiate sampling of repair parts kits usage upon request of the responsible Production Management Specialist. Notify depot supply by memorandum, of line item support requirements when normal material standard refinement and workload projection processing will not give timely support for any line items removed from repair parts kits.
- 1.3.6. ALC Financial Management Cost Analysis Activity/other areas will be able to provide appropriate representation during kit review to ensure kiting decisions are based on cost justification and customer support (as needed).
- 1.3.7. Contractor or other services kit providers will take necessary action to provide line item support upon appropriate notification by establishing AFMC Retail Stock Control and Distribution special levels. Notify the Maintenance Activity when unable to provide line item support by date of initial use.
- 1.3.8. Provide appropriate representation during kit review.

Chapter 2

KIT CONTENTS

Section 2A—Criteria and Component Parts

2.1. Criteria for Selection of Kit Contents. The selection of parts or material to be included in repair parts kits must be based on specific, cost-effective benefits in the area of supply support, inventory management, cost to maintenance, customer support, or improved overhaul and repair.

2.2. Components of Repair Parts Kits. Kit components include expense items and materials only. These components will be stocklisted items subject to the limitations outlined in paragraphs **2.2.1.-2.2.7.**

2.2.1. Kits containing shelf life controlled components as identified in AFMAN 23-110, volume 7, part 3, chapter 1 or TO 00-20K-1; will be assigned the expiration date of the shortest shelf life component contained in the kit. Items which have short shelf life should be reviewed for the initiation of a supplemental kit following the same procedures as outlined herein.

2.2.2. Range of oversized or dimensional parts may be included in kits, provided the cost/ need is clearly justified and fully coordinated by the ES. The economic justification must be retained as a permanent record in the kit file.

2.2.3. Parts in excess of 100 percent replacement should be considered for placement in supplemental kits identified to the end item/assembly. If kits are not at 100 percent usage and are not practical for supplemental kits the remaining unopened parts packages will be returned to the Source of Supply (SOS) for refilling of the kit. If cost analysis and estimates of the items not required to accomplish repair are justified, this justification must be retained in the kit file record. The same cost saving analysis is to be applied to supplemental kits as regular repair kits. The percentage of each kit components will not require the degree of disassembly of the end item to exceed that specified by applicable technical order.

2.2.4. Bulk issue material such as paint, oil, adhesives, solvents, wire, cable, or solder may be included in kits only if the residue after repair is insignificant and the item would not normally be available in bench stocks at the repair activity.

2.2.5. Potentially hazardous material, as identified in AFMAN 24-204(I) or the Code of Federal Regulations (CFR) title 49, parts 100-199, will only be used in kits with approval of Packaging and Transportation Activity. The Item Management Team (IMS/ES/Engineer) will provide any relevant information concerning the contents, storage, shipment, and use of any kit containing potentially hazardous material.

2.2.6. Stocklisted components of repair parts kits will be screened against the D043 Master Item Identification Control Systems (MIICS) by the ES. If an item is recorded in an Interchangeability and Substitutability (I&S) relationship, I&S master item should be utilized in the kit. However, with ALC Item Management Team approval/concurrence substitute items may be utilized where needed.

2.2.7. Use of kit components will not require the degree of disassembly of the end item to exceed that specified by applicable technical order.

2.3. Government Furnished Material (GFM). GFM Components of repair parts kits are screened to ensure use of available assets according to AFMAN 23-110, Vol. III, Part One, and Chapter 9. Age Controlled items will not be furnished as GFM.

2.4. Special Considerations. Consideration should be given to those items proposed for inclusion in kits, which are restricted in nature (sole source control), for acquisition purposes. The alternatives to inclusion of these items in kits are: individual line item support, or the establishment of a separate supplemental kit. Before considering the alternatives, each item in the kit should be assigned an appropriate acquisition method code/acquisition method screening code (AMC/AMSC). Upon completion of the assignment of these codes, consideration of the factors as outlined in paragraphs **2.4.1. -2.4.4.** should be made prior to the establishment of the kit.

2.4.1. What percentage of the total items in the kit is subject to restricted acquisitions?

2.4.2. Are the restricted items identified to more than one manufacturer?

2.4.3. Have previous difficulties been encountered in procuring, as a single line item/kits, any of the restricted items contained in the kit or the kit itself as a result of these difficulties?

2.4.4. Has consideration been given to the Acquisition Method Code (AMC)/Acquisition Method Screening Code (AMSC) assigned to the components when assigning an AMC/AMSC to the complete kit?

2.5. Return of Unused Kit Residue. All kit residues will be reported or returned to the inventory control point for disposition. Significant amount of kit residue will be annotated on the packing list and a copy sent to the Maintenance Activity monitor to consider for kit review.

2.5.1. Upon return of a kit to the ICP an inventory of used materials will be charged to the appropriate financial account. This method will remain in place until such time as sufficient technology is in place for the U.S. Air Force to maintain immediate asset accountability and tracking.

Chapter 3

KIT ESTABLISHMENT

Section 3A—General Information

3.1. General. Consider the use of parts kits when the repair item requires, or is likely to consistently require, the replacement of related parts or material. Repair parts kits aren't normally established for parts which don't have predictable life expectancy. For example most electronic components are not normally included in parts kits. The responsible ALC Financial/Technical Activity will, determine repair parts kits applicability during initial end item provisioning. Kits may be established after this, when they are justified. Multiple Kits (multi-kits) are repair parts kits for the repair of multiple quantities of an end item (end item quantities greater than one). Obtain primary TRC or base maintenance coordination, in line with the level of repair, on the economic justification record in the multi-kit file. Multi-kits may be authorized for any level of repair provided no single unit parts or other multi-kit containing the same components are approved for the same level of repair. When developing repair kits the availability of support stock must be considered.

3.2. Establishing New Repair Kits. All new repair kits, proposed for establishment, will be submitted to the Defense Logistics Agency, DLIS (KF) for cataloging and standardization purposes, upon Item Entry Control (IEC) review of the kit components using the AFMC Form 221. Recommend the ALC equipment specialist to screen the individual kit items for a master national stock number (NSN). Also, refer to AFMCMAN 23-3, Chapter 6 for the establishment of the kit number. The coordination package will contain complete data in the Repair Parts Kit, and Establish/Review Data/Drawings file applicable to the component items. Those replacement items decisions reached during the IEC review will be implemented by the responsible ES.

3.2.1. Forms Preparation. See [Attachment 2](#) for complete instruction on AFMC Form 221.

3.3. Acquisition of Repair Parts Kits. All new repair kits will consider "value engineering" (VE) incentives. All parts within a kit must be identified and have available adequate specifications and technical data for those items coded for competitive contracting.

3.3.1. To permit accurate stock list pricing and financial management of kit inventory, the total unit cost of the repair parts kit is required by the IMS. The contract cost of the kit is available to the IMS from their copy of the distributed contract. In the event GFM or split contracting is involved, the cost will be obtained by the IMS.

3.3.2. The contractor will assemble and deliver as complete kits including all named components, both Contractor Acquired Property (CAP) and GFM, as negotiated. The Air Force will not incur cost of a contractor kitting parts in one of their departments for delivery to another of their departments.

3.3.3. Repair parts kits will be packaged according to MIL-STD-129P.

3.3.4. Kits will be established under a new NSN for tracking and identification purposes (see [5.1. - 5.1.4.](#)).

3.4. Requirements Computation. The requirements for repair kits are computed in Secondary Items Requirements System (SIRS) D200A.

3.4.1. Kit requirements at the Depot will be based on actual usage to minimize over-stockage. Requirements for repair kits will be based on production schedules. Review of kit usage will be done on a biannual basis, or as often as required, to reflect changes in production.

3.5. Engineering and Technical Data Publications. When a repair parts kit is established or revised, the appropriate ES (and/or other services kit managers) personnel will update all affected engineering and technical data publications.

3.6. Disposition of Excess Kits. Excess repair kits managed by other services will be reported and returned to the managing ICP for proper disposition. For kits managed by the Air Force dispositions will be done in accordance with AFMAN 23-110, Vol. II, Part two, and Chapter 15.

Chapter 4

KIT REVIEW/REVISION

Section 4A—Kit Review Process

4.1. General. Review existing kits to ensure kit contents reflect current requirements. Review of a kit will be made at a minimum of 3 years and at other times as outlined in paragraph 4.1.1. - 4.1.4.

- 4.1.1. Receipt of any indications of an imbalance in the kit contents.
- 4.1.2. Design or technical order change to the end item.
- 4.1.3. Major change in the end item repair concept (type/method).
- 4.1.4. Before re-procurement action of any kit, if a review has not been accomplished within the last 12 months.

4.2. Kit Review. A “one-time” kit review will be accomplished for kits with a balance in excess of total workload. If it is determined that the kit will be deleted, the 3-year kit review requirement can be waived via HQ AFMC/A4YR concurrence. Re-procurement review before re-procurement will normally be done at the time of receipt of data-level notice. When a data-level notice has not been received, a review will not be required if the last review was accomplished within the preceding 12 months.

- 4.2.1. Update Reviews. Update reviews will be conducted quarterly to assure that all support follow-up actions are accomplished.
 - 4.2.1.1. Assets which will not be de-kitted are those used at both field and depot. Field kits that are 100 percent replacement items should remain in field kits. Foreign Military Sales (FMS) peculiar kits, life support and oxygen related kits will not be de-kitted.
 - 4.2.1.2. No kit will be discontinued unless the kit review process has been accomplished.

4.3. Responsible Parties. Representatives from ALC Financial, Technical, Requirements, Maintenance, and Distribution Activity, and where appropriate other services/contractors representatives, will jointly review kits during the kit review process. ALC Contracting Activity will assist in the kit review process, as required. The Technical Activity will chair the panel. In the event a review is required for a specific problem the Technical Activity will determine those activities not needed for the review. Decisions must be unanimous. Ensure that the date of review is recorded in the kit folder.

4.4. Considerations. Areas to be considered during the Review Process:

- 4.4.1. Length of time kit will be in service, number of items in the kit, number of long lead time items.
- 4.4.2. Number of kits on purchase request (PR) and on contract in relation to delivery dates, kit stock-out dates, demands and consumption, individual line item need dates, and line item support.
- 4.4.3. Cost analysis of kit cost vs. individual item procurement cost.
- 4.4.4. All assigned Air Force managed NSNs against D043, MIICS to ensure that, if an item is left in the kit and is contained in the I&S group, it is the master item. All replacement NSNs are screened to identify those that can be furnished by GFM.

4.4.5. Additional items for inclusion using the same criteria as contained in 4.4.

4.4.6. Each item in the kit will be individually reviewed. A kit will not be changed or deleted until each item has been individually reviewed and line item supportability is met. If it is determined that components will be partially or completely broken out, ensure that stock is available to cover lead time.

Section 4B—Revision Process and Actions Required

4.5. Kit Revision. After the initial kit review process is accomplished, and the decision is made to revise or delete the kit, assure that no line item will be eliminated until routine cataloging action is taken for submission of non-stocklisted items still required for repair of the end item. These items will be added to the Application Programs and Indentures System (API) D200F. Appropriate action had been taken to verify, update, correct cataloging data, and kit file, as necessary.

4.5.1. Source of supply (SOS) has been notified of new increased demands by the appropriate IMS. All line items to be eliminated must have lead-time assets available, to include assets on order and on contract, only if the estimated delivery date (EDD) will meet the required delivery date. Appropriate forms have been prepared by the Requirement Activity and sent to SOS at least 12 months in advance of projected stock outage. Appropriate action has been taken to inform Distribution Activity in advance of projected stock outage to set special levels.

4.5.2. One quarters worth of assets must be on hand to be considered supportable. Assets on order/contract to fill backorders will not be considered as being available. All required technical order changes have been initiated and necessary configuration control data has been gathered and supplied to appropriate SOS's, etc. All bills of material changes have been accomplished, and API records updated.

Section 4C—Documentation of Kit Components and Changes

4.6. Documentation. Maintain a historical record of parts kits (See **Chapter 5**, Kit Documentation). By using this procedure, a complete, up-to-date listing of valid kit components is available at all times. This documentation, in addition to any supplemental documentation, is maintained in the kit file to provide a chronological history of item additions, deletions, and kit review actions.

4.6.1. Actions, taken as a result of the review of a given kit, are documented and kept as a record in the parts kit file. All activities involved, other services /contractors, will document concurrence which will be maintained in the parts kit file.

4.6.2. Kit unchanged. Data and information considered in arriving at this decision should be included in a kit file.

4.6.3. Kit deleted. Document reason in file to ensure it is not re-procured, terminate contract if feasible, determine disposition of remaining kits, and take action to provide line item support for affected items.

4.6.4. Kit revised. Change kit contents and document reasons in files. Actions to be considered from a cost and support standpoint are the following:

4.6.4.1. Existing kit usage and parts usage; adjust level or revise before next acquisition.

- 4.6.4.2. Return kits to the contractor/other services for revisions.
- 4.6.4.3. End existing contracts; requisition new kits/supplemental kits.
- 4.6.4.4. Any other economical actions.

Chapter 5

KIT DOCUMENTATION FILE

Section 5A—File Contents Documentation Specifics

5.1. Establishment Information. Repair Parts Kits, Establish/Review Data. Documentation will contain the date of initiation of the information contained within the documentation.

5.1.1. ALC, End Item/Weapon System/NSN/End Item Reference Number, Kit NSN, Type of Kit, Type of Repair, Reason for Review, any Backup Information used, Results of Review, Date of Review/Establishment Signature of ES/Engineer.

5.1.2. Coordination and date each department notified.

5.1.3. Kit Source Data to include SOS, Commercial and Government Entity (CAGE, formerly FSCM), and any Reference Numbers.

5.1.4. Maintain documentation on all kits per AF Records Disposition Schedule at <https://afrims.amc.af.mil>.

A.B. Morrill III, Major General, USAF
Director of Logistics

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****Abbreviations and Acronyms***

ALC—Air Logistics Center

AMC—Acquisition Method Code

AMSC—Acquisition Method Suffix Code

API—Applications, Programs & Indentures System (D200F)

CAP—Contractor Acquired Property

CASC—Cataloging and Standardization Center

CAGE—Commercial and Government Entity

CFR—Code of Federal Regulations

EDD—Estimated Delivery Date

ES—Equipment Specialist

FMS—Foreign Military Sales

GFM—Government Furnished Material

I&S—Interchangeability and Substitutability

ICP—Inventory Control Point

IEC—Item Entry Control

IMS—Inventory Management Specialist

IPB—Illustrated Parts Breakdown

MIIC—Master Item Identification Control System (D043)

MMSR—Master Material Support Record

NSN—National Stock Number

PMS—Production Management Specialist

PR—Purchase Request

SIRS—Secondary Items Requirements System (D200A)

SOS—Source of Supply

SPM—System Program Manager

TO—Technical Order

TCTO—Time Compliance Technical Order

TOC/ECP—Technical Order Compliance/Engineering Change Proposal

TRC—Technical Repair Center (The actual repair organization or shop using the kit)

VE—Value Engineering

Attachment 2**FORM INSTRUCTIONS**

FOR INSTRUCTIONS ON USING THIS FORM SEE AFMC FORM 221

PART I KIT INFORMATION

BLOCKS (Note that BLOCKS 1, 2 and 6 also apply to the continuation sheet)

1. KIT NSN. The National Stock Number of the kit is self-explanatory. There is enough room for dashes and a space between the NSN and the MMAC Code.
2. KIT PART NUMBER. The KIT PART NUMBER, for configuration control, must always be the Part Number of the original kit and not the part number of the last supplier of the kit.
3. DATE. For this DRAFT the DATE, is TEXT format. The date may be entered in any combination on this DRAFT only; the final form may require a specific format for the date, i.e. 20040401.
4. KIT NOUN. The NOUN of the kit, a description related to the kit application. (i.e. FLAP REPAIR KIT; SERVO OVERHAUL KIT; YOKE MODIFICATION KIT.)
5. KIT CAGE. The KIT CAGE, for configuration control, must always be the CAGE of the original kit and not the part number of the last supplier of the kit.
6. KIT REVISION. The revision shall be an alpha character, which shall be blank upon establishment of the kit and go to an "A" on the first change to the kit, "B" for the second change, etc.
7. KIT T.O.FIG/INDEX. The T.O. Figure and Index is REQUIRED (or the date of the Form 252 was initiated in Block 13, REMARKS) to aid all that will use this Parts Kit List Worksheet.
8. END ITEM/WEAPON SYSTEM. The End Item/Weapon System would be what the highest or total of all the "Next Higher Assemblies" make when put together; i.e. AN 274, F-16, A-10.
9. NEXT HIGHER ASSY, NSN. The NEXT HIGHER ASSY, NSN, is that item that the kit modifies supports or repairs.
10. NEXT HIGHER ASSY, NOUN. The NEXT HIGHER ASSY, NOUN, is self-explanatory.
11. NEXT HIGHER ASSY, T.O. FIG/INDEX. The NEXT HIGHER ASSY, T.O., FIGURE and INDEX, is an aid to all that will use this Parts Kit List Worksheet in understanding exactly what the kit modifies supports or repairs.

PART II KIT COORDINATION / REMARKS

1. & 2. KIT COORDINATION. The KIT COORDINATION is for the approving cognizant Equipment Specialist and Engineer, blocks are self-explanatory.
3. REMARKS. The REMARKS should relate to information beneficial to the manufacturer of the kit or the kit application.

PART III KIT REVIEW / REMARKS

1. & 2. KIT COORDINATION. The KIT REVIEW is for the approving cognizant Equipment Specialist and Engineer, blocks are self-explanatory.

3. REMARKS. The REMARKS should relate to information beneficial to the manufacturer of the kit or the kit application.