



Maintenance

**AIR EDUCATION AND TRAINING COMMAND  
TECHNICAL MANUALS (AETCTM)**

----- Compliance with this instruction is mandatory -----

This instruction implements AFD 21-3, *Technical Orders*. AETCTMs are developed, published, issued, and controlled through the system established by this instruction. This system sets procedures, standards, and minimum requirements for the preparation of AETCTM drafts and camera copy. This instruction applies to trainer development activities that manufacture and (or) maintain trainers and training devices listed in Federal Stock Class 6900. It applies only to those AETCTMs issued in support of trainers and training devices as described; it does not include trainers covered by the Air Force Technical Order System or supported by Air Force Materiel Command (AFMC).

**SUMMARY OF REVISIONS**

Changes OPR HQ AETC/LGMTA to HQ AETC/LGMMP. Establishes 2 AF/LG as the AETC centralized staff management function for AETCTMs. Paragraphs highlighted with a ★ indicate revised material.

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Section A--The AETCTM System

**1. Applicability.** AETCTMs contain procedures for the installation, operation, and maintenance of trainers and training devices manufactured by AETC trainer development activities. AETCTMs are not required for:

- 1.1. One-of-a-kind trainers or training devices with no moving parts or electrical circuits.
- 1.2. Trainers and training devices supported by AFMC or covered by the Air Force Technical Order System.
- 1.3. Trainers and training devices not included in Federal Stock Class 6900.

**★2. Responsibilities of Trainer Development Activities.** All trainers and training devices within AETC, except those excluded by paragraph 1, must be operated and maintained according to procedures in the appropriate AETCTM. Each trainer development activity will develop and publish AETCTMs which provide information on the

assembly, installation, operation, service, disassembly, overhaul, and reassembly of equipment and identification of parts. Each AETCTM will be a stand-alone package which provides for maximum base-level repair. Trainer development activities will provide AETCTMs within 180 days following trainer acceptance by the requester. The trainer development activity responsible for the equipment will:

- 2.1. Issue supplements, changes, and revisions as necessary.
- 2.2. Maintain a record set for each of its AETCTMs. (See AFMAN 37-139, *Records Disposition--Schedule*, for disposition of AETCTM record sets.)

**★2.3.** Request additional-user AETCTM copies of another trainer development's published AETCTMs from the AETCTM OPR. (See AETCIND 3, *Index of AETC Technical Manuals*.)

**★2.4.** Request AETCTM waivers from 2 AF/LG.

**3. Glossary.** See attachment 1 for a glossary of references and terms.

**4. Recommending Improvements to AETCTMs.** Send recommendations for improvements to the trainer development activity having responsibility for the AETCTM. Do not send recommendations to correct spelling, typographical errors, or punctuation unless the meaning of a word or sentence is changed.

### 5. Numbering AETCTMs:

★5.1. Each AETCTM is identified by number and listed in AETCIND 3. Each number is preceded with "AETCTM." For example, AETCTM 89841117-02 identifies the manual for a cockpit familiarization trainer designed by Randolph AFB in 1984. The first two digits (89) represent the base identifier, the second two digits (84) identify the calendar year in which the equipment was designed, and the next four digits (1117) are the design sequence number. The two digits (02) following the dash designate a major equipment type as follows:

- 01 - part task trainer (PTT)
- 02 - cockpit familiarization trainer (CFT)
- 03 - cockpit procedures trainer (CPT)
- 04 - mission trainer (MT).
- 05 - operational flight trainer (OFT)
- 06 - weapon system trainer (WST)
- 07 - missile procedures trainer (MPT)
- 08 - mobile training sets (MTS)
- 09 - resident training equipment (RTE)
- 10 - egress procedures trainer (EPT)
- 11 - ejection seat procedures trainer (ESPT)
- 12 - academic trainer, aircraft systems (ATAS)
- 13 - space programmed training equipment (SPTE)
- 14-98 - reserved for future requirements--(to be assigned by 2 AF/LG)
- 99 - miscellaneous type trainer (MTT)

5.2. Modification instructions are identified by adding a three-digit number *immediately* (no space or dash) after the major equipment type designator; for example, 02101. The first digit of the modification number designates the maintenance level required to accomplish the modification. For example, 1 is field level and 2 is depot (trainer development activity) level. The second and third digits (01-99) designate the number of modifications issued against the equipment, regardless of maintenance level at which they were accomplished.

**6. Types of AETCTMs.** Manuals authorized by this instruction are limited to those described below. This includes changes, revisions, and supplements thereto.

**6.1. Preliminary AETCTM.** This is an AETCTM prepared in limited quantities for interim use to test and

verify procedures against the first test or early production model of a trainer. It may be used for training purposes and operational use pending receipt of a formal printed manual, and it is identified by stamping or typing the word "Preliminary" at the top center of the cover page. Each preliminary AETCTM is assigned a number and a sequential copy number; for example, copy 2 of 10 copies.

**6.2. Time Compliance (Modification) AETCTM.** This is an AETCTM containing instructions for modifying trainers, performing or initiating special one-time inspections, and (or) imposing temporary restrictions on the use of the trainers.

**6.3. AETCTM.** This is a manual designed to meet the needs of personnel engaged or being trained in the assembly, disassembly, reassembly, operation, maintenance, service, overhaul, installation, inspection, and identification of trainer parts.

### Section B--Publishing AETCTMs

#### 7. Planning, Developing, and Distributing AETCTMs:

7.1. Begin to plan and develop an AETCTM in the early stages of the trainer design and development process. To conserve time, perform verification and validation at the same time. In a coordinated effort between the user and trainer development personnel, verify initial AETCTMs during development, test, and evaluation. Verification may continue into the operational test and evaluation if necessary.

7.2. Document this process on AETC Form 372, **Technical Manual Validation and Verification Record**. The user and trainer development representative will sign the form. The training development activity will retain it in the training device jacket file.

★7.3. On completion of verification and validation, send two copies of the final draft AETCTM; a completed AF Form 673, **Request to Issue Publication**; and a signed copy of the AETC Form 372 to 2 AF/LG for review, coordination, approval, and inclusion in AETCIND 3. The 2 AF/LG will return the final draft with coordination, comments, and approved AF Form 673 to the trainer development activity. On completion of the coordination process, the trainer development activity will publish the AETCTM. At least one copy of the AETCTM will be provided with each trainer or training device. The 2 AF/LG will provide a copy of the approved AF Form 673 to HQ AETC/LGMMP for update and inclusion in AETCIND 3.

★7.4. When changes to AETCTMs occur, send two copies of the final draft AETCTM and completed AF Form 673 to 2 AF/LG for review, certification, approval,

and inclusion in AETCIND 3. The 2 AF/LG will return a copy of the final draft with coordination, comments, and approved AF Form 673 to the trainer development activity. On completion of the coordination process, the trainer development activity will publish the AETCTM. The 2 AF/LG will provide a copy of the AF Form 673 to HQ AETC/LGMMP for update and inclusion in AETCIND 3.

## 8. Preparing AETCTMs:

8.1. **Writing Style.** The main consideration in preparing a technical publication is its technical content. It should be presented in language free from vague and ambiguous terms, using the simplest words and phrases that will convey the intended meaning. All essential information must be included, either by direct statements or reference.

8.1.1. For maximum clarity and usefulness, be consistent in terminology within the same publication or series of AETCTMs.

8.1.2. To the extent the nature of the data being presented will allow, be consistent in organization among like AETCTMs.

8.1.3. Use short and concise sentences.

8.1.4. Use punctuation that aids reading and avoids misinterpretation. Well planned word order requires a minimum of punctuation. When punctuation is excessive, rewrite sentences for clarity.

8.1.5. Use the *US Government Printing Office Style Manual* as a general guide for capitalization, punctuation, compounding of words, numerals, and spelling of nontechnical words. Technical words may be used only when no other word will convey the intended meaning. Do not use quotation marks or underscoring for emphasis.

8.1.6. Use section and paragraph headings descriptive of the contents of the division they head; avoid the use of "general" or "miscellaneous."

8.1.7. Mark pages containing emergency information with a broken black border.

8.1.8. Ensure part time (nomenclature) is consistent within the AETCTM and throughout parts lists, parts breakdown, and other directly related publications.

8.1.9. In statements explaining applicability for individual items of equipment, use specific serial numbers, block designations, specific model designations, or similar identification.

8.1.10. Do not use such terms as "on later equipment" or

"on earlier serial numbers."

8.1.11. Make no reference to age, sex, race, or national origin. Use gender-neutral terms, avoiding the use of the word "person." For example, use the nouns "firefighter" and "worker." **NOTE:** The terms "airman," "manpower," "man-year," and "man-day" are still authorized for use.

8.1.12. When graphics or illustrations are necessary to convey technical information or understanding, use neutral-gender human figures that reflect a cross section of races.

8.2. **References.** The text must refer to:

8.2.1. Only models or types covered by the AETCTM. To facilitate coverage of modified or additional models or types at a later date, references should be held to a minimum, consistent with clarity.

8.2.2. Temperature readings as calibrated on the equipment. If other than Fahrenheit, the equivalent in Fahrenheit will follow parenthetically. General temperature references, such as room temperature, will normally be given in degrees Fahrenheit.

8.2.3. Speed, distance, and meter readings as calibrated on the equipment. When the metric system is used on the equipment, conversion to US standards will follow in parentheses.

8.2.4. Switch positions and panel markings exactly as marked on the equipment. However, symbols on panel markings may be spelled out, such as the symbol for "Ohm," "infinity," etc.

8.2.5. Measurements in US standard units (ounces, pounds, gallons, inches, feet, knots, miles, etc.) except instances in which metric measurements are required.

8.2.6. Illustrations by figure number, including section letter and number (when applicable), and the sheet number for multisheet illustrations. Refer only to illustrations within the same AETCTM. Include the figure and sheet number in references to multisheet illustrations.

8.2.7. Index numbers on illustrations first, followed by the figure number; for example, "34, FIGURE 2-6."

8.2.7.1. However, when multiple references in a paragraph refer to the same figure, only the first reference needs to indicate the figure number. For example, indicate "Disassembly of Air Valve (FIGURE 5-3). Unscrew safety disc retainer (2) from valve body (1) and remove safety disc (3) and safety disc washer (4)."

8.2.7.2. When the sequence is unbroken for procedures

requiring two or more pages, repeat the figure number followed by the word "continued" after the first reference on each succeeding page.

8.2.7.3. If two or more figures are involved in the same sequence, cite the figure with the greater number of items as described above.

8.2.7.4. Item callouts for items of remaining figures will have the figure number following the item number; for example, "21, FIGURE 5-4." In such cases, the paragraph lead-in will contain a statement similar to the following: "Item numbers below refer to FIGURE 5-3 unless otherwise indicated."

8.2.8. Parts on diagrams by enough of their reference designation to identify the items; for example, "B6A11."

8.2.9. Tables by table number. Refer only to tables within the same AETCTM.

8.2.10. Other supporting paragraphs in the same AETCTM. Use of the word "paragraph" or "subparagraph" before the number is optional; be consistent in its use or omission. (Avoid duplication of material within the manual except when required for clarity or emphasis.)

8.2.11. Other subparagraphs of the same primary paragraph as "above" or "below."

8.2.12. Other publication numbers (omitting dates, page, figure, and paragraph numbers) to avoid duplication of material exceeding two pages. Reference may be made only to publications within the publications system authorized at user level. Cross-referencing is prohibited when material of two pages or less is involved.

8.2.13. Footnotes, when essential for reference, explanation, comments, etc. If footnotes are used in the text, use consecutive numbers beginning with "1." As long as it is consistent, the numbering system may be per page, per section, or per manual. Do not repeat identical footnotes in the unit chosen for numbering (page, section, or manual). Do not use footnotes in the text for mandatory requirements. Number footnote references separately for each table in accordance with the *US Government Printing Office Style Manual*. Place footnotes to the text at the bottom of the page; place footnotes to tables below the closing line of the applicable table.

8.3. **Grammatical Person and Mood.** Use the second person imperative mood for procedures (for example, "Remove test set from carrying case."). Use third person indicative mood for description and discussion (for example, "When switch A is in the ON position, lamp 12 lights.").

8.4. **Abbreviations.** Hold abbreviations to a minimum and define each abbreviation the first time it appears in each section. An excellent rule to follow is, when in doubt, spell it out.

8.5. **Military Terms.** Use military terms according to Joint Publication (JP) 1-02, *DoD Dictionary of Military and Associated Terms*.

8.6. **Mandatory vs Nonmandatory Language.** Use "shall," "will," or "must" to express a provision that is binding. (*NOTE:* It may be necessary to use "will" where simple futurity is required; for example, "power for the meter will be supplied by the trainer.") Use "should" or "may" to express a nonmandatory provision.

8.7. **Tables, Charts, and Graphs.** Present reference data (other than illustrations, drawings, and diagrams) in tabular, chart, or graph form. Any other type of data that lends itself to tabular, chart, or graph form may also be presented. Design tables, charts, and graphs so they are easily understood. Charts and graphs are considered illustrations and must be assigned figure numbers.

8.8. **Tabular Material.** When a small amount of tabular information is to be inserted and will not require referencing from adjacent text, it may be included in a paragraph of text without being identified as a table.

### *Section C--Specifications and Standards*

★9. **Minimum Requirements.** This instruction sets the minimum requirements for the preparation of drafts and camera ready copy for AETCTMs and changes thereto. It includes all technical documents assigned an AETC identification number, controlled by 2 AF/LG, and listed in AETCIND 3. Each AETCTM must contain the information in paragraphs 10 through 20 of this instruction and be placed in the format specified in section D. If an AETCTM covers different models, series, or configurations of equipment, provide differential data sheets or a supplement manual, if needed, must be provided for clarity.

10. **Front Matter.** This includes:

10.1. **Title Page.** Each AETCTM must have a title page which serves as a cover page. This is an unnumbered page showing the AETCTM number, title, stock number, manufacturer's name and address, publication date, and change number with date. See attachment 2 for format and print size.

10.2. **List of Effective Pages.** See attachment 3 for a sample list of effective pages.

10.2.1. This page is the back of the title page and is

identified in the lower outer corner by a capital letter "A." When additional space is required, add page "B," "C," etc. The list of effective pages includes all manual pages, including title page, a list of effective pages, blank pages, deleted pages, and fold-out pages. Place the following statement at the top of page A of the list of effective pages: "Reproduction for nonmilitary use of the information or illustrations contained in this publication is not permitted." This statement is not required on pages "B," "C," etc., of the list of effective pages. Show applicable change or revision numbers and dates on the list of effective pages after the statement; "DATES OF ISSUE FOR ORIGINAL AND CHANGED PAGES ARE: . . ."

10.2.2. Update the list of effective pages for each AETCTM change or revision. Keep the list to a minimum by grouping numbers when applicable. List as separate numbers the printed side of the sheet and the blank number page, even though a double number will appear on the printed side of the sheet. Place the words "deleted" or "blank" beside the page number of pages so affected. Show appropriate change numbers in the "Change No." column.

10.3. **Table of Contents.** For each AETCTM, prepare a table of contents, including a list of illustrations and tables (attachment 4). Ensure the table of contents lists the sections and paragraphs in the same order and with the exact titles used in the text. Show the page number of each section or paragraph. Omit paragraph titles from the table of contents in publications containing indexes. Show the figure number, title, and page number of each figure. Show the table number, title, and page number of each table.

10.4. **Safety Summary.** Include a safety summary in each AETCTM (attachment 5). Include all general precautions (high voltage warning, warning against servicing alone, and resuscitation statement), warnings, and cautions. If necessary, rephrase warning and cautions so they can be understood out of context. The summary must contain shop-related general safety precautions that will not normally be repeated in the text; for example, the use of safety glasses during grinding operations. However, if there is any doubt, include the warning or caution in the text.

10.5. **Introduction.** Each AETCTM will contain an introduction or introductory material describing the scope and purpose of the AETCTM plus any other information required by the technical content (attachment 6). Include descriptive information and details of the equipment.

10.6. **List of Proprietary Information Included.** Copyrighted publications must have a copyright release from the publisher when included as an AETCTM insert.

Other proprietary information will have a release from the originator. After the introduction paragraphs, list the proprietary information included in the AETCTM (attachment 6). Add a statement that a release has been obtained from the publisher or originator.

10.7. **Reference Publications.** If needed for clarity, list publications that relate to the subject matter of the AETCTM or are specifically referenced in the AETCTM (attachment 6).

**11. Preparation for Use and Installation Instructions.** Provide unusual unpacking and assembling instructions. Explain inspection procedures for in-shipment damage. Provide special installation instructions, such as foundation, ventilation, and clearance requirements; plumbing and electrical connections; mounting details; wiring diagrams; initial lubrication instructions; and alignment procedures, as appropriate.

**12. Theory of Operation.** Provide necessary electrical and general theory of operation instructions for the understanding of operating and maintenance personnel.

**13. Operating Instructions.** These instructions will include, but not be limited to:

13.1. Explanation of the use and function of each control or instrument.

13.2. Initial adjustments and control settings.

13.3. Start up.

13.4. Normal operation.

13.5. Operation under emergency, adverse, or abnormal condition, if applicable.

13.6. Shut down, normal and emergency.

**14. Maintenance Instructions (Preventive and Corrective).** Include the following (annotate use of special tools and test equipment including model or type designation, as appropriate):

14.1. **Cleaning and Lubrication.** Periodic cleaning and lubrication information covering types of cleaning agents or lubricants required, lubrication frequency, and intervals (monthly, quarterly, semiannually, hours of operation, etc.). Application points and capacity (required amounts) must be adequately identified. A pictorial format for lubrication is desirable, but not required. Cleaning and lubrication that take place during repair, replacement, and reassembly must be covered during such operations.

14.2. **Troubleshooting.** Troubleshooting data and fault

isolation techniques to correct malfunctions that might occur during operation of the equipment must state:

14.2.1. The indication of the trouble.

14.2.2. Instructions necessary, including test hookups, to determine the cause.

14.2.3. Restoration of the equipment to operating condition. **NOTE:** Information will be in tabular format with appropriate headings. See examples at attachment 7.

14.3. **Inspection.** Provide instructions, including scheduling of equipment for inspection for damage and wear. Tabular or chart form is preferred with emphasis on allowable service limits, wear, backlash, end play, balance, length and depth of scoring, etc. (These tolerances are not to be confused with manufacturing tolerances; they are acceptable wear tolerances that will not impair performance.) This information must be sufficiently comprehensive to serve as a standard by which experienced technicians may determine when parts may be continued in service and when they must be replaced.

14.4. **Performance Verification.** When applicable, provide the requirements for accuracy verification of the equipment measurement devices needed to restore the equipment to its original accuracy. These instructions provide complete step-by-step procedures which will enable the user to check the accuracy of the indications or readings. Also include the locations of test connections and values at these points. Also include adjustments of built-in, self-test features, if any.

14.5. **Disassembly, Repair, Replacement, and Reassembly.** Give instructions in the proper sequence for disassembling, repairing, replacing, and reassembling the equipment. Include test, adjustment, and checkout data after reassembly. Provide illustrations, including exploded views, as necessary for clarity.

15. **Preparation for Reshipment Instructions.** Include instructions for the disassembly, removal, and separate packing of sensitive or fragile components; use of reusable shipping cases or containers; special cradles; securing; covering and preservation; and precautions for reshipment, shipment, and unloading.

16. **Storage Instructions.** If equipment is subject to be stored, include instructions for indoor and outdoor storage, temperature limitations, storage facilities, dunnage, ventilation, revetting, drainage, staking, grounding, covering, and preservation.

17. **Parts List.** The parts list provides positive identification of parts necessary for support of the

equipment. It includes sufficient information for personnel to requisition replacement parts.

17.1. **Parts List Illustrations.** Provide clear and legible illustrations to identify component parts and parts relationship. Number and title the illustrations as specified in paragraph 28.1.

17.2. **Use of Index Numbers:**

17.2.1. Each illustration shows an index number which cross-references the illustrated part to the listed parts. Group parts in the listing by assemblies and subassemblies, with detail parts identified to the assembly of which they are components.

17.2.2. Indent the subassembly nomenclature one space to the right of the assembly nomenclature. Indent the detail parts nomenclature one space to the right of the subassembly nomenclature. Use periods to fill the spaces caused by indenting (attachment 8).

17.2.3. Index numbers for each separate figure should start with the Arabic number 1 and continue consecutively. Sequence should be from top to bottom or clockwise when possible. (Multisheet illustrations in a set are considered to be one figure.)

17.2.4. Capital alphanumeric suffixes (3A, 3B, etc.) may be used to identify new callouts inserted between items when an illustration is changed. This system may also be used in the basic AETCTM when errors are discovered so late in preparation that renumbering all following index numbers would delay publishing.

17.2.5. Suffixes index numbers need not be eliminated for a revision unless the illustration must be reaccomplished. Except for exploded views used for disassembly, all functional items shown as exploded views must be identified as such.

17.3. **Vendor Parts.** Purchased vendor components, assemblies, parts, and bulk items not of special design (such as bolts, washers, nuts, screws, keys, hinges, wire, cable, gasket material, tubing, hose, etc.) must be identified by the vendor's part number or AN/MS/NAS part number, as appropriate.

17.4. **Trainer-Peculiar Parts.** Assign a part number to each part manufactured by or over which the trainer development activity exercises design control and for which the activity is the logical supplier. This includes vendor or commercial parts that have been altered or modified and can no longer be used in their original configuration. Establish part numbers for these items, using the drawing number and item number from the bill of materials. Identify these items in the parts list by an

asterisk (\*) following the index number (attachment 8, items 1 and 7).

17.5. **Vendor Code.** Include the commercial and government entity (CAGE) code in a separate column after the description column.

**18. Illustrations.** Each AETCTM must contain enough illustrations (line drawings and (or) halftones) to locate and identify all components of operational and maintenance significance and, where necessary for clarity, to show the configuration and removal and disassembly of parts. When applicable, include the following: exploded views showing the relationship of assemblies, subassemblies, and detail parts; schematic diagrams showing the functional physical arrangement of component devices or parts; wiring diagrams showing the physical electrical connections of the circuit arrangement; and schematic piping diagrams showing the interconnection of piping, tubing, or hose and the direction and sequence of fluid flow.

**19. Diagrams.** Provide circuit or plumbing diagrams to support theory, maintenance, and troubleshooting.

**20. Warnings, Cautions, and Notes.** (See attachment 9 for a sample key.) Warnings and cautions will precede the text, but follow the paragraph headings to which they apply. Notes may precede or follow the applicable text, depending on the material to be emphasized. Warnings, cautions, and notes must not contain procedural steps, and headings will not be numbered. When a warning, caution, or note consists of two or more paragraphs, the heading WARNING, CAUTION, or NOTE is not repeated above each paragraph. (If it is necessary to precede a paragraph by both a warning and a note [or a caution and a note, etc.], warnings precede cautions and cautions precede notes.) Warnings, cautions, and notes must be short, concise, and used only to emphasize important or critical data. Warnings and cautions may be worded positively or negatively and must state the hazard and result or reason, unless it is obvious.

#### **Section D--Format Requirements**

**21. Preparation.** Prepare each AETCTM according to paragraphs 22 through 32. Some paragraphs may not be required because of equipment design. In such cases, delete the paragraph that is not required and reformat the package. Do not omit sections no matter how simple they seem to be.

#### **22. Front Matter:**

22.1. **Title Page.** See attachment 2 for format and print size.

22.2. **List of Effective Pages.** See attachment 3 for format. Except for the title, which must be in 14-point type, all other type must be not less than 10 points.

22.3. **Table of Contents.** The table of contents will include a list of illustrations showing the figure number, title, and page number of each figure and a list of tables showing the table number, title, and page number of each table (attachment 4). The list of illustrations and tables will begin on the page following section VII in the table of contents. **NOTE:** When the lists of illustrations and tables are brief, both may be shown on the same page.

22.4. **Safety Summary.** Each AETCTM must have an safety summary (attachment 5). The summary begins at the top of the right-hand page immediately following the list of illustrations and tables.

22.5. **Introduction.** Each AETCTM must have an introductory paragraph or section. The introduction starts on the top of a right-hand page immediately following the safety summary.

**23. Text.** Each AETCTM must contain the information required by section C of this instruction and should be divided into sections as follows:

23.1. **Section I, Description and Leading Particulars.** This section provides the scope of the AETCTM, purpose of equipment, leading particulars, controls (their location and function), and composite illustrations of the trainer. Show power requirements, including standby, operating, and surge amperage in a table. Present all controls and their location and function in tabular form.

23.2. **Section II, Special Tools and Equipment.** This section lists all special tools and equipment required to maintain the trainer.

23.3. **Section III, Preparation for Use and Reshipment.** This section describes the facilities required for the trainer and provides instruction for uncrating, installation, preparation for use, storage (if applicable), and preparation for reshipment. Provide trainer dimensions and weights in tabular form.

23.4. **Section IV, Operation.** This section provides the theory of operation (mechanical and electrical), safety precautions, power up, operating procedures, and shutdown (emergency and normal) instructions.

23.5. **Section V, Maintenance.** This section provides maintenance requirements and instructions for maintaining the trainer. This includes preventive maintenance, cleaning, lubrication, inspection, troubleshooting, removal and replacement, repairs, and (or) adjustments. Provide tables outlining minimum performance standards (may

only be an electrical power check), cleaning, refinishing materials and lubricants, and troubleshooting. Present data in tabular form. The troubleshooting table should list the trouble or malfunction, probable cause, and inspection or remedy (corrective action required).

**23.6. Section VI, Diagrams.** This section contains the schematics or diagrams (wiring, hydraulic, plumbing, etc.) required to maintain the trainer, an explanation of wire numbers or color codes, etc., and a listing of diagram data. Provide a diagram index showing the figure number and title of each schematic or diagram in a table.

**23.7. Section VII, Illustrated Parts Breakdown (IPB).** This section provides the illustrated parts breakdown, maintenance parts list, and a numerical index (if applicable). Include instructions on how to use the parts list and how to obtain trainer peculiar items. List in a separate table the CAGE codes used and the applicable manufacturer's address.

**24. Final Draft Copy--Preparation Methods.** Equipment used for preparing the instructions and marginal copy must be adequate for the purpose intended. It must provide clear, legible publications at the most economical cost, considering both initial preparation and follow-on costs, such as reproduction, printing, handling, filing, storing, and shipping. Office typewriters or computers, etc., may be used for preparing text. Type must be not less than 10 points. Prepare copy as specified below. Fasten page elements not imprinted on the page, including corrections, to the page in a manner that will permit repeated handling without the possibility of losing stripped-in portions. As a minimum, text must be single spaced and in a single column, heading must be prepared on the same composing equipment as the text, and printing or ink must be of such color and contrast to permit quality photographic reproduction.

**25. Final Draft Copy--Leading and Spacing.** Layout must conserve space without lessening usability or clarity of material. Avoid blank pages and spaces whenever possible. Use leading and spacing for best legibility and conservation of space. Do not double space text within a paragraph. Slight variations of text are permitted to avoid layout practices that would result in:

25.1. The first line of a paragraph being at the bottom of a page.

25.2. The last line of a paragraph being at the top of a new page.

25.3. A sidehead falling on the last line of a page.

25.4. Warnings, cautions, and notes being divided so that first lines appear on one page and remaining lines on

another.

25.5. An undesirable location of an illustration or table.

**26. Marginal Copy.** Marginal copy may consist of the change number, page content or equipment identification, figure number and title, and page number. Mount the marginal copy on full page illustrations, including those for foldout pages, that have been prepared in exact printing size (or in the same size as text pages). Full-page photographs that are oversize must either have the marginal copy separate or have the marginal copy prepared proportionately oversized and mounted on (included in) the photograph. Do not put marginal copy on an overlay. (*NOTE:* Place marginal copy outside that portion of the page used for either narrative text or full page illustrations, but within the printing area dimensions of the page.)

**27. Identification Number.** Place the AETCTM identification number in the upper right corner of the title page approximately 1/2 inch from the top and 1 inch from the right edge. See attachment 2 for location and print size.

**28. Numbering.** Number each AETCTM as follows:

**28.1. Pages, Paragraphs, Tables, and Illustrations.** Number pages, paragraphs, tables, and illustrations consecutively within each section, using two-part Arabic numerals separated by a hyphen. The first numeral is the section number; the second numeral is the order within the section. The page number appears in the lower outer corner of each page. For example, page 5-3 is the third page in section V, while paragraph 5-3 would be the third paragraph in section V. Table 5-3 is the third table in section V. (A section may contain both a figure 5-3 and a table 5-3.) When a section starts with a full-page illustration, the illustration may be placed on a left-hand page and the page numbered "zero"; for example, 1-0, 3-0, etc. Multisheet illustrations are numbered consecutively following the title; for example, "Figure 7-2. Seat-man Separator Motor Clutch Assembly. (Sheet 1 of 3 Sheets)." Remaining sheets are numbered in consecutive order; for example, Sheet 2, Sheet 3, etc.

**28.2. Blank Page.** A blank page is accounted for, but the number appears on the preceding or following page. For example, if page 6 of section I is blank, page 5 is numbered 1-5/(1-6 Blank); or if page 5 of section I is blank, page 6 is numbered (1-5 blank)/1-6. Also, when applicable an added page, such as 1-6.1, should show that page 1-6.2 is blank.

**28.3. Title Page.** Do not number the title page.

**28.4. List of Effective Pages.** Identify the list of effective

pages by the capital letter "A" in the lower left corner. When additional space is required, add pages "B," "C," etc.

**28.5. Front Matter.** Number all front matter pages following the list of effective pages and preceding section I with sequential, lower case Roman numerals (for example, i, ii, iii, iv, etc.).

**28.6. Procedural Steps.** Identify procedural steps and substeps consecutively. Identify procedural steps by lower case letters (for example, a, b, c, etc.) and substeps by Arabic numerals.

**28.7. Appendixes.** When used, identify appendixes by capital letters; for example, APPENDIX A, APPENDIX B, etc. Number pages, paragraphs, illustrations, and tables for appendixes consecutively in Arabic numerals, separated by a dash and preceded by the capital letter of the appendix. For example, A-7 is the seventh page or paragraph in appendix A; figure B-1 is the first illustration in appendix B; table C-1 is the first table in appendix C.

**29. Headings.** Center numbers and titles for each section at the top of the first page of text. Start each section on a right-hand page and center the section title two lines below the section number.

**30. Indentations.** Indent all lines of warnings, cautions, and notes 1/2 inch from both left and right margins. In addition, set the left margin to justify; leave the right margin "ragged."

**31. Tables and Charts.** Prepare tables and charts as follows:

**31.1. Final Draft Copy.** Place a horizontal rule at the beginning (head) and at the end (foot) of a table or chart. Center the table or chart number and title in capital letters above the head rule of a table or chart. Also capitalize box titles. Design tables so related entries in different columns are aligned.

**31.2. Continued Material.** When a chart or table is continued on a following page, repeat the number and title at the head of the columns on all following pages of the table, followed by a dash and the abbreviation "cont." Repeat boxhead titles also. When information opposite an item is continued, repeat the item or its identifying number or letter followed by a dash and the abbreviation "cont."

**31.3. Footnotes.** The numbering of footnotes to charts or tables must be independent of footnotes to the text. Indicate the references by consecutive superior numbers within each chart or table. (Superior lower case letters, asterisks, or another designation may be used where numbers would cause confusion.) Keep footnotes to a minimum consistent with clarity and place them

immediately below the chart or table in which they are referenced. Start footnotes at the end of the chart or table on the second line below the closing rule. Notes begin on the left margin and carryover lines return to the number of the note or to the point where the text begins if only one note.

**31.4. Rules.** Tables may be ruled vertically as required for clarity. Place a horizontal rule at the beginning and at the end of each chart or table. Omit the closing rule at the foot of a continued chart or table; omit the opening rule on the continuation thereof.

## **32. Illustration Placement and Legends (Keys):**

**32.1. Illustration Outline.** Indicate the point at which an illustration, chart, or table is to be placed by a break in the text and insertion of the figure number and title (attachment 10). Place cutlines at the end of the first paragraph or subparagraph to which they pertain. Begin the figure number at the left margin with a 1-inch space above and below the outline. Place cutlines for fold-out illustrations at the end of the text. For final draft copy, mount the illustration, chart, or table in place and the outline becomes the figure title.

**32.2. Figure Titles.** Assign each illustration a figure title. Begin the title two spaces to the right of the figure number. Figure titles should begin with an identifying name; for example, panel assembly, engine start. Use short titles that describe the contents or purpose of the illustration.

**32.3. Illustration Key.** For final draft copy, when space permits, place the key on the illustration page. Otherwise, begin it at the top of the page immediately following the illustration. Divide the key into two or more columns to conserve space (attachment 9).

**32.4. Divisions.** Divide each AETCTM into sections and paragraphs. Title each section and numbered paragraph except for procedural steps or statements that follow a colon. Begin the second and all following subparagraph lines at the left margin. Plan the breakout to subordinate what should be subordinated. For example:

- 5-12. NONREVERSIBLE VALUE.
  - a. Removal.
  - b. Disassembly.

**32.4.1. Sections.** Use Roman numerals to number sections consecutively with each AETCTM.

**32.4.2. Paragraphs.** Divide text into primary paragraphs and subordinate paragraphs. Subordinate paragraphs may be further divided into first subordinate paragraphs. Paragraphs may also be divided into procedural steps.

Procedural steps may be further divided if necessary for clarity. Use alphanumeric paragraph numbering.

32.4.3. **Paragraph Headings.** Identify paragraph headings as primary sideheads, first subordinate, second subordinate, etc. Periods follow paragraph headings. All numbered paragraphs have a sidehead. Handle paragraphs without sideheads as procedural steps.

32.4.4. **Primary Sideheads.** Primary sideheads are normally used to divide text within a section into two or more portions. There should be at least one primary sidehead in each section. Primary sideheads stand alone (are not run in with text) and should appear in capital letters. They should begin on the left margin and should be underscored or prepared in boldface type.

32.4.5. **Subordinate Sideheads.** Number subordinate sideheads and have the order of heading as shown in figure 1.

32.4.6. **Procedural Steps.** Use procedural steps to provide step-by-step instructions, such as disassembly, reassembly, and adjustment procedures. Steps may be further divided into substeps. Number each procedural steps.

32.4.7. **Appendixes.** Capitalized and center appendix headings. Appendixes immediately follow the last section of the manual. Number pages, paragraphs, and illustrations and identify them as outlined above.

<p>(1) 1-1. PRIMARY SIDEHEAD</p> <p>(2) a. First Subordinate Sidehead. Xxxx xxx xxxxx x xx xxx xxxxxxx.</p> <p>(3) (1) First Sub-subordinate Sidehead. Xxx xxx xxx xxx xxx xxx xxx xxx (see note).</p> <p style="text-align: center;">OR</p> <p>(1) 1-1. PRIMARY SIDEHEAD</p> <p>(2) a. First Subordinate Sidehead. Xxxx xxx xx xxxxx xxx xxx xxxxxx.</p> <p>(3) (1) First Sub-subordinate Sidehead. Xxxx xxxx xxx xxx (see note).</p> <p><b>NOTE:</b> Breakdowns beyond the first sub-subordinate paragraph or first subordinate procedural step are not normally required. The number of the first subordinate sidehead or first procedural step begins in the same position where the text begins in the primary sidehead. The number of the second subordinate or first subordinate procedural step begins in the same position where the text begins in the first subordinate sidehead or first procedural step. The second and all following lines of subordinate sideheads begin in the same position where the number of the subordinate sidehead begins. The second and all following lines of procedural steps and subordinate procedural steps begin at the same position where the text begins. Capitalize the first letter of the first word of the title and of each principal word. The text begins on the same line as the title separated by a period and two spaces.</p>
--

Figure 1. Order of Heading.

PAUL L. BIELOWICZ, Colonel, USAF  
Director of Logistics

## GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

### *References*

Joint Pub 1-02, *DoD Dictionary of Military and Associated Terms*

AETCIND 3, *Index of AETC Technical Manuals*

AFMAN 37-139, *Records Disposition Schedule*

### *Terms*

**Boxhead title**--Titles that are enclosed by rules at the head of a column on tables and charts.

**Callout**--Anything placed on an illustration to aid in identifying the objects being illustrated, such as index numbers, nomenclatures, leadlines, arrows, procedures, and, when placed directly on the illustration, legends (keys).

**CAUTION**--An operating or maintenance procedure, practice, condition, statement, etc., that, if not strictly observed, could result in damage to, or destruction of, equipment or loss of mission effectiveness or long term health hazards to personnel.

**Change**--Corrected pages to the basic manual totaling 80 percent or less.

**Commercial publications**--Manuals, booklets, or like data furnished by manufacturers to purchasers of their products or equipment.

**Final draft (formal or final manual)**--The final document complete with illustrations, tables, charts, etc., ready for printing and publication as an authenticated AETCTM.

**Format**--Configuration and text layout of an AETCTM.

**Illustration cutline**--The point at which an illustration, table, or chart is to be placed. It is indicated by a break in the text and the insertion of the figure number and title (see attachment 10).

**Index numbers and letters**--Callouts which consist of a number or letter leading to a legend (key) which defines the symbol used.

**Layout page**--A blank sheet showing marginal copy only, used by an editor to indicate where text, illustrations, and tabular data will appear on the reproducible copy.

**Leader lines**--A line with or without arrowheads extending from the index number, letter, or nomenclature to the item.

**Legend (key)**--A tabular listing of the key numbers or letters and their meaning.

**Nomenclature callout**--Nomenclatures or partial nomenclatures placed directly on the illustration; for example, "articulated gadget," "1/2-inch widget." (**NOTE:** An essential operating or maintenance procedure, condition, or statement that must be emphasized.)

**Preliminary AETCTM**--A manual intended for interim use to make the technical information available for test, verification, training purposes, and operational use pending receipt of formal printed AETCTMs.

**Publication date**--The date set by the trainer development activity after which no additions, deletions, or changes will be made to the publication material.

**Revision**--A second or subsequent edition of an AETCTM that supersedes the preceding edition and has a new basic date. It includes all existing changes. Normally, an AETCTM is revised when the pages affected by existing changes, in addition to pages requiring change, total 80 percent or more of the AETCTM.

**Section--**Each major functional subdivision of AETCTMs prescribed by this instruction.

**Supplement--**A subsidiary document that complements information in a manual.

**Technical data--**Scientific or technical information regardless of form or characteristics.

**Technical manual--**A publication or other form of documentation containing a description of equipment with instructions for effective use, including initial preparation for use (operation, maintenance, overhaul, parts lists or parts breakdown), and related technical procedures.

**Validation--**The actual performance of operation and maintenance procedures to ensure they are technically accurate, complete, and compatible with the requirements of all applicable specifications. Validation includes, but is not limited to, configuration inspection, circuit analysis, troubleshooting, checkout, calibration, alignment, fault isolation, removal, repair and replacement instructions, and associated checklists, if applicable.

**Verification--**The process by which AETCTMs are tested and proven. Verification is conducted in an operational environment to ensure AETCTMs are clear, logical, and adequate for the operation and maintenance of equipment and to certify the compatibility with pertinent hardware, tools, and support equipment.

**WARNING--**An operating or maintenance procedure, practice, condition, statement, etc., that could result in injury to or death of personnel if not strictly observed.

## SAMPLE TITLE PAGE

**AETCTM 89941155-101** (14 point)

**TECHNICAL MANUAL** (14 point)

**TRAINER OPERATION AND MAINTENANCE** (18 point)

**WITH** (18 point)

**ILLUSTRATED PARTS CATALOG** (18 point)

**T-38 EGRESS PROCEDURES** (24 point)  
**TRAINER** (24 point)

**STOCK NUMBER 6910L100240J** (18 point)  
**TRAINER DEVELOPMENT FLIGHT** (18 point)

**12 LSS/LGLD** (14 point)  
**RANDOLPH AFB, TEXAS**(14 point)

May 94 (14 point)  
CHG 1, 10 Aug 94 (14 point)

**SAMPLE LIST OF EFFECTIVE PAGES**

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INSERT LATEST CHANGED PAGES. DESTROY SUPERSEDED PAGES.

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NOTE: The portion of the text affected by the changes is indicated by a vertical line in the outer margins of the page.

DATES OF ISSUE FOR ORIGINAL AND CHANGED PAGES ARE:

Original ..... 0 ..... 3 May 94  
Change..... 1 ..... 10 Aug 94

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 84, CONSISTING OF THE FOLLOWING:

Page .....	*Change
No. ....	No.
Title .....	1
A .....	1
1-1...1-6 .....	0
2-1 .....	1
2-2 Blank .....	1
3-1A...3-4 .....	0
3-5 .....	1
3-6 ...3-8 .....	0
4-1...4-7 .....	0
4-8 .....	1
5-1...5-10 .....	0
6-1...6-4 .....	0
7-1...7-28 .....	0

\* Zero in this column indicates an original page

A Change 1

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## TABLE OF CONTENTS

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<i>(Add paragraphs if needed; for example, removal of shipping covers, caster, installation of shipping covers, casters, etc.)</i>	
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<i>(May need additional paragraphs to cover different systems; for example, canopy, seat, etc.)</i>	
V MAINTENANCE.....	5-1
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*(Add paragraphs as needed to cover removal and installation of each item.)*

5-14 TESTS, REPAIRS, AND ADJUSTMENTS ..... 5-10

5-15 TESTS AND (OR) REPAIRS OF . . . ..... 5-11

*(List any tests and (or) repairs if applicable. Use a separate paragraph for each.)*

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6-1	DIAGRAM INDEX.....	6-2

(NOTE: When the list of illustrations and list of tables are brief, both may be shown on the same page.)

## SAMPLE SAFETY SUMMARY

### SAFETY SUMMARY

The following are general safety precautions that are not related to any specific procedures. These are recommended precautions that personnel must understand and apply during many phases of operation and maintenance.

#### KEEP AWAY FROM LIVE CIRCUITS

Operating personnel must, at all times, observe all safety regulations. Do not replace components or make adjustments inside the equipment with the high voltage supply turned on. Under certain conditions, dangerous potentials may exist when the power control is in the OFF position due to charges retained by capacitors. To avoid casualties, always remove power and discharge and ground a circuit before touching it.

#### DO NOT SERVICE OR ADJUST ALONE

Under no circumstances will any person reach into or enter the enclosure for the purpose of servicing or adjusting the equipment except in the presence of someone who is capable of rendering aid.

#### RESUSCITATION

Personnel working with or near high voltages should be familiar with modern methods of resuscitation. Personnel performing maintenance above the user level (which requires working near high voltages) must be a graduate or an approved cardiopulmonary resuscitation (CPR) course.

#### WARNING

To prevent injury to personnel and damage to equipment, be sure that all electrical power is removed from the facility power box before proceeding.

#### WARNING

In case of emergency that could cause injury to personnel or damage to equipment, press the EMERGENCY POWER OFF switch.

#### WARNING

To prevent injury to personnel or damage to equipment, power must not be applied while performing the following procedures.

#### WARNING

Disconnect all electrical power before cleaning with any liquid cleaning agent. Injury to personnel and damage to trainer due to short circuit or fire may result. When cleaning with solvent, be sure that area is well-ventilated to prevent concentrations of fumes which may be poisonous or explosive.

#### WARNING

High voltages which can cause death or injury are present in the seat and canopy.

## SAMPLE INTRODUCTION

### INTRODUCTION

1. **PURPOSE OF THIS MANUAL.** This manual provides operation and maintenance information on the F-16 Cockpit Familiarization Trainer (CFT), Stock Number 6910L100210J, Design Number 89-94-1117, designed and fabricated by the Trainer Development Flight, Randolph Air Force Base, Texas. The trainer simulates the cockpit of the F-16 aircraft.

2. **CONTENTS OF THIS MANUAL.** This manual is divided into seven sections for ease in locating the type of information desired. Information pertaining to trainer-peculiar systems, components, or operation is presented in the following sections:

Section I, Description and Leading Particulars, contains the scope of the manual, purpose of equipment, description, leading particulars, control location and function, and a composite illustration of the trainer.

Section II, Special Tools and Equipment, lists special tools and support equipment required to maintain the trainer.

Section III, Preparation for Use and Reshipment, describes the facilities required for the trainer, installation, preparation for use, and preparation for reshipment. A table is included which lists dimensions and weight of trainer.

Section IV, Operation, provides theory of operation, safety precautions, and operating procedures.

Section V, Maintenance, describes the maintenance required for the trainer.

Section VI, Wiring Diagrams, contains the wiring diagrams required to maintain the trainer, an explanation of wire numbers/color codes, and a listing of wiring diagram data.

Section VII, Illustrated Parts Breakdown, contains the illustrated parts breakdown, maintenance parts list, numerical index, and the reference designation index.

3. **USE OF THIS MANUAL.** A table of contents indicates section, paragraph, title, and page number to facilitate location of information. Illustrations, tables, and diagrams are located throughout the publication to supplement the text. Schematics and wiring diagrams are included to facilitate part replacement, troubleshooting, and testing. A list of illustrations and tables indicates number, title, and location. Abbreviations, phrases, and words on a decal, placard, or an engraving are set forth in the text exactly as they appear on a decal, placard, or engraving.

4. **REPAIR KITS.** None are required.

★5. **CHANGE RECOMMENDATIONS.** Proposed changes to this manual should be submitted through command channels to:

12 LSS/LGLD  
660 A Street West  
Randolph Air Force Base, Texas 78150-4515

★6. **RELATED PUBLICATIONS.** This manual contains copyright material and release letters for attachments 1 and 2 which are on file at Randolph Trainer Development Flight, 12 LSS/LGLD, Randolph AFB, Texas. The copyright material is used with the permission of:

Bell and Cossett	Holman Inc.
8200 Austin	15378 Cypress Park
Morton IL 60143	Fort Wayne IN 61512

7. **REFERENCE PUBLICATIONS.** Listed below are publications related to the subject matter or specifically referenced in this manual:

TO 00-35D-54, *USAF Deficiency Reporting and Investigating System*  
TO 00-20-7, *Inspection System, Documentation, and Status Reporting for Support and Training Equipment*

**SAMPLE BOXHEAD TITLES, TABLE RULES,  
CONTINUED TABLES, TABLE FOOTNOTES, AND COLUMN ENTRIES**

TABLE 5-3. TROUBLESHOOTING

TROUBLE	PROBABLE CAUSE	INSPECTION/REMEDY
Trainer Power ON, indicator fails to illuminate (see note 1).	a. Power Select Switch not positioned to facility power being used.	a. Position Power Select Switch to proper facility power.

TABLE 5-3. TROUBLESHOOTING-CONT.

TROUBLE	PROBABLE CAUSE	INSPECTION/REMEDY
Trainer Power ON, indicator fails to illuminate. (continued)	e. Faulty Power Select Switch.	c. Remove facility power from trainer. Place Power Select Switch to 110 VAC position. Check for continuity between switch contacts 22-3, 5-6, 8-9, and 11-12. If no continuity between any two contacts, replace switch (see note 2).

- NOTES:**
1. Ensure indicator bulb is serviceable before troubleshooting.
  2. Ensure power is turned off before replacing switch.

SAMPLE PARTS LISTING

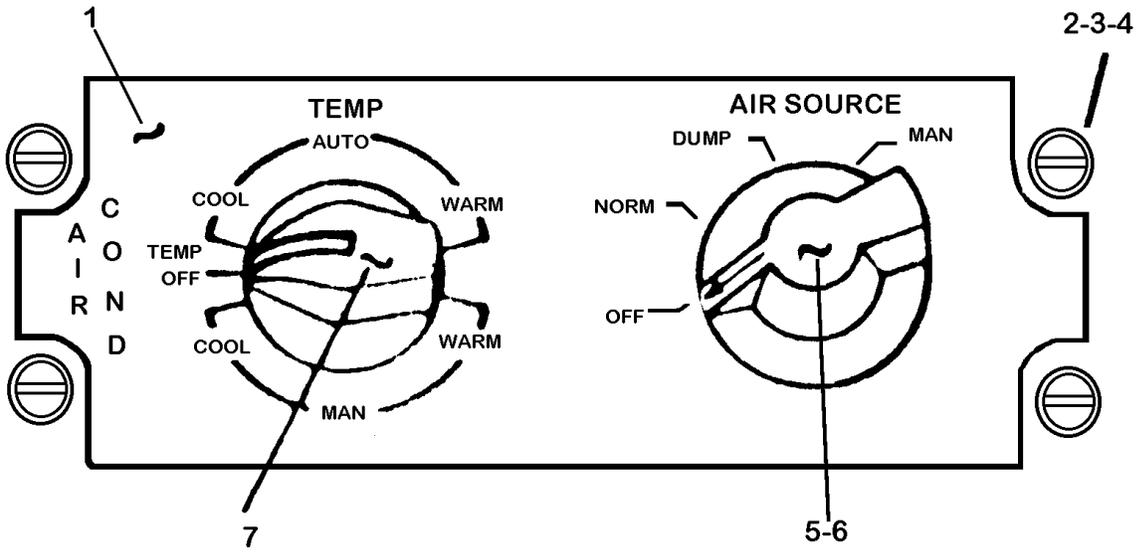


FIGURE 7-59. PANEL ASSEMBLY, AIR CONDITION CONTROL INSTALLATION.

FIGURE & INDEX	PART NUMBER	NOMENCLATURE	CAGE	QTY PER ASSY
7-59	COA-001-0040	Panel Assembly, Air Condition Control Installation.....		Ref
-1*	COA-001-0040-01A	.Panel Assembly, Air Condition Control.....	13467	1
-2	PF31/2-38	.Stud, Dzus Fastener Co., Inc.....	69573	4
-3	PS31/2	.Spring, Dzus Fastener Co., Inc.....	69573	4
-4	PC31/2	.Cup, Dzus Fastener Co., Inc.....	69573	4
-5	4A45-01-04N	.Switch, Air Source-Grayhill.....	43210	1
-6	62-9498-1	.Knob, Air Source, Systems Eng. Elect. Inc.....	74352	1
-7*	COA-001-0051-1	.Switch Assembly, Temp. Select.....	13461	1
		..Attaching Parts (not shown).....		
	MS35214-27	...Screw, Pan Hd.C/R 6-32x .50 lg.....	96906	2
	AN960C6	...Washer, Flat Plain #6.....	96906	2
	MS21083C06	...Nut, Hex, Self-locking 6-32.....	96906	2

NOTE: When illustration is large or detailed, use two pages. Place illustration on left page and text on facing right page.

**SAMPLE WARNINGS, CAUTIONS, NOTES, AND ILLUSTRATION KEY**

**A9.1. Warnings, Cautions, and Notes:**

WARNING

or

WARNING

or

WARNING

To prevent injury to personnel and damage to equipment, be sure all electrical power is removed from the facility power box before proceeding.

CAUTION

The projector uses a heat-absorbing glass to protect the slides during projection. The glass is subjected to high temperatures, creating tension in the glass. Therefore, handle the glass with extreme care to avoid breakage when removing it from the projector.

NOTE

If a forklift is not available, it will be necessary to raise the trainer with a Johnson bar. Position the bar to raise one corner at a time and install the casters as outlined in Step c.

**A9.2. Illustration Key:**

KEY TO FIGURE 1-3

- |                    |                     |
|--------------------|---------------------|
| 1. Panel Assembly  | 9. Screw            |
| 2. Stud            | 10. Circuit breaker |
| 3. Ring            | 11. Circuit breaker |
| 4. Spring          | 12. Holder fuse     |
| 5. Circuit breaker | 13. Fuse            |
| 6. Indicator       | 14. Door            |
| 7. Lamp            | 15. Switch          |
| 8. Circuit breaker | 16. Stud            |

**SAMPLE TYPICAL DRAFT COPY PAGE WITH ILLUSTRATION OUTLINE**

## SECTION I

## DESCRIPTION AND LEADING PARTICULARS

1-1. SCOPE OF MANUAL. This manual provides description, operation, maintenance, special tools, support equipment, and illustrated parts breakdown information for the . . . .

1-2. PURPOSE OF EQUIPMENT. The trainer is used to familiarize the student with the location of controls, operation of equipment, procedures, and any other features affecting . . . .

1-3. DESCRIPTION. The trainer (figure 1-1) is a . . . .

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FIGURE 1-1. T-38 EJECTION SEAT TRAINER (FRONT VIEW).

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1-4. POWER REQUIREMENTS. The trainer requires an external source of 115VAC, single-phase, 50/60 Hz electrical power for . . . .