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Component Maintenance Manual with Illustrated Parts List

Electric Tail Logo Floodlight

Part Number	CAGE
30-2581-3	72914

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TRANSMITTAL INFORMATION

TO HOLDERS OF ELECTRIC TAIL LOGO FLOODLIGHT CMM ATA NO. 33-42-30 ISSUED FOR USE IN SUPPORT OF THE FOLLOWING:

Table TI-1 shows the applicable components.

Table TI-1. Applicable Components

Component PN	Nomenclature
30-2581-3	Electric Tail Logo Floodlight

Revision History

Table TI-2 shows the revision history of this CMM.

Table TI-2. Revision History

Revision Number	Revision Date
0	6 Jun 2000
1	15 Feb 2001
2	30 Sep 2003
3	1 Dec 2013
4	25 Aug 2014
5	6 Dec 2016
6	4 Mar 2020

This revision replaces some data in the manual. All changed pages have a new date, as identified in the List of Effective Pages. Revision bars identify the changed data. A revision bar adjacent to the Fig./Item column identifies changes in the Detailed Parts List. See Transmittal information for history of revisions to this CMM.

Put the changed pages in the manual and remove and discard all replaced pages. Write the revision number, revision date, and replacement date on the Record of Revisions page.

Revision bars mark the technical data that changed in this revision; those changes are described in the Table of Highlights. Editorial changes are not marked with a revision bar.

The table of highlights tells users what has changed as a result of the revision. The table consists of three columns.

The Task/Page column identifies the blocks of changed information, such as a task, subtask, graphic, or parts list, and the page on which that block starts. The block of information often includes the MTOSS code. Revision marks, when provided, identify the location of the change within the block.

The Description of Change column tells about the change or changes within each block. The description of change is often preceded by a paragraph or figure reference that applies to the block of information.

The Effectivity column tells the user the part number(s) to which the block of information applies. The default value for this column is "All." "All" means that the block applies to all parts.

Table of Highlights

Task/Page	Description of Change	Effectivity
TRANSMITTAL INFORMATION	Global Change: Changed the content and format to agree with the Honeywell processes in effect at the time of the release of this revision.	All
TRANSMITTAL INFORMATION	Global Change: The editorial changes and data that were moved or reformatted are not identified with revision bars.	All
RECORD OF TEMPORARY REVISIONS	Added TR 33-2, incorporated in Rev 6.	All
Subtask 33-42-30-99F-016-A01 (Page INTRO-18)	Paragraph 6.A. Step (1). Table INTRO-4. Added Engineering Technical Review row.	All
Subtask 33-42-30-99C-013-A01 (Page 6001)	Paragraph 1.B. Step (3). Table 6001. Added crimping tool, PN 46121.	All
Subtask 33-42-30-300-009-A01 (Page 6006)	Paragraph 2.I. Step (3)(c). Changed crimping tool PN from “59250” to “46121”.	All
Subtask 33-42-30-400-002-A01 (Page 7003)	Paragraph 2.B. Step (9). Added figure reference to incorporate TR 33-2 and added note.	All
Subtask 33-42-30-400-002-A01 (Page 7004)	Figure 7001. Added figure to define the correct orientation of the reflector’s cutout for the logo light to incorporate TR 33-2.	All
Subtask 33-42-30-940-001-A01 (Page 9001)	Paragraph 1.B. Step (3). Table 9001. Added crimping tool, PN 46121.	All

RECORD OF REVISIONS

For each revision, write the revision number, revision date, date put in the manual, and your initials in the applicable column.

NOTE: Refer to the Revision History in the TRANSMITTAL INFORMATION section for revision data.

Revision Number	Revision Date	Date Put In Manual	By		Revision Number	Revision Date	Date Put In Manual	By

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RECORD OF TEMPORARY REVISIONS

Instructions on each page of a temporary revision tell you where to put the pages in your manual. Remove the temporary revision pages only when discard instructions are given. For each temporary revision, put the applicable data in the record columns on this page.

Definition of Status column: A TR may be active, incorporated, or deleted. “Active” is entered by the holder of the manual. “Incorporated” means a TR has been incorporated into the manual and includes the revision number of the manual when the TR was incorporated. “Deleted” means a TR has been replaced by another TR, a TR number will not be issued, or a TR has been deleted.

Temporary Revision Number	Status	Page Number	Issue Date	Date Put In Manual	By	Date Removed From Manual	By
33-1	INC Rev 3						
33-2	INC Rev 6						

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SERVICE BULLETIN LIST

Refer to Table INTRO-5 for other applicable service information documents not listed in the Service Bulletin List.

Service Bulletin/ Revision Number	Title	Modification	Date Put in Manual
30-2581-33-SB01	Electric - Tail Logo Floodlight - Electrical System, P/N 30-2581-3; Replacement of Lens Assembly		15 Feb 2001

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LIST OF EFFECTIVE PAGES

* Indicates a changed or added page.
F Indicates a foldout page.

LIST OF EFFECTIVE PAGES (Cont)

* Indicates a changed or added page.
F Indicates a foldout page.

TABLE OF CONTENTS
LIST OF SECTIONS

TABLE OF CONTENTS (Cont)
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LIST OF SECTIONS (Cont)

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INTRODUCTION

1. How to Use This Manual (TASK 33-42-30-99F-801-A01)

A. General (Subtask 33-42-30-99F-001-A01)

(1) This publication gives maintenance instructions for the equipment shown on the Title page.

(2) Standard maintenance procedures that technicians must know are not given in this manual.

(3) This publication is written in agreement with the ATA Specification.

(4) Refer to the Special Tools, Fixtures, and Equipment and Consumables tables in each section before the start of maintenance or repair procedures.

(5) An explanation on how to use the ILLUSTRATED PARTS LIST is given in the Introduction to that section.

(6) Honeywell recommends that you do the tests in TESTING AND FAULT ISOLATION before you disassemble the unit. These tests can show the condition of the unit or most possible cause of a malfunction. If a malfunction occurs, repair as necessary.

(7) Warnings, cautions, and notes in this manual give the data that follows:

- A WARNING gives a condition or tells personnel what part of an operation or maintenance procedure, which if not obeyed, can cause injury or death.
- A CAUTION gives a condition or tells personnel what part of an operation or maintenance procedure, which if not obeyed, can cause damage to the equipment.
- A NOTE gives data, not commands. The NOTE helps personnel when they do the related instruction.

(8) Warnings and cautions go before the applicable paragraph or step. Notes follow the applicable paragraph or step.

B. Observance of Manual Instructions (Subtask 33-42-30-99F-002-A01)

(1) Make sure that you carefully obey all safety, quality, operation, and shop procedures for the unit.

(2) All personnel who operate equipment and do maintenance specified in this manual must know and obey the safety precautions.

C. Symbols (Subtask 33-42-30-99F-003-A01)

(1) The symbols and special characters are in agreement with IEEE Publication 260 and IEC Publication 27. Special characters in text are spelled out.

(2) The signal mnemonics, unit control designators, and test designators are shown in capital letters.

(3) The signal names followed by an “*” show an active low signal.

(4) Some figures in this manual incorporate standard geometric characteristic symbols. Refer to Figure INTRO-1 for the geometric characteristic symbols.

CHARACTERISTIC SYMBOLS

FLATNESS	PERPENDICULARITY
STRAIGHTNESS	PARALLELISM
CIRCULARITY	ANGULARITY
CYLINDRICITY	CIRCULAR RUN OUT
PROFILE OF A SURFACE	POSITION
PROFILE OF A LINE	SYMMETRY
CONCENTRICITY	

MODIFYING SYMBOLS

- (M) MAXIMUM MATERIAL CONDITION (MMC)
- (S) REGARDLESS OF FEATURE SIZE (RFS)
- (P) PROJECTED TOLERANCE ZONE

OTHER SYMBOLS

- ∅ DIAMETER
- NEGATIVE NOTATION

FEATURE CONTROL FRAME

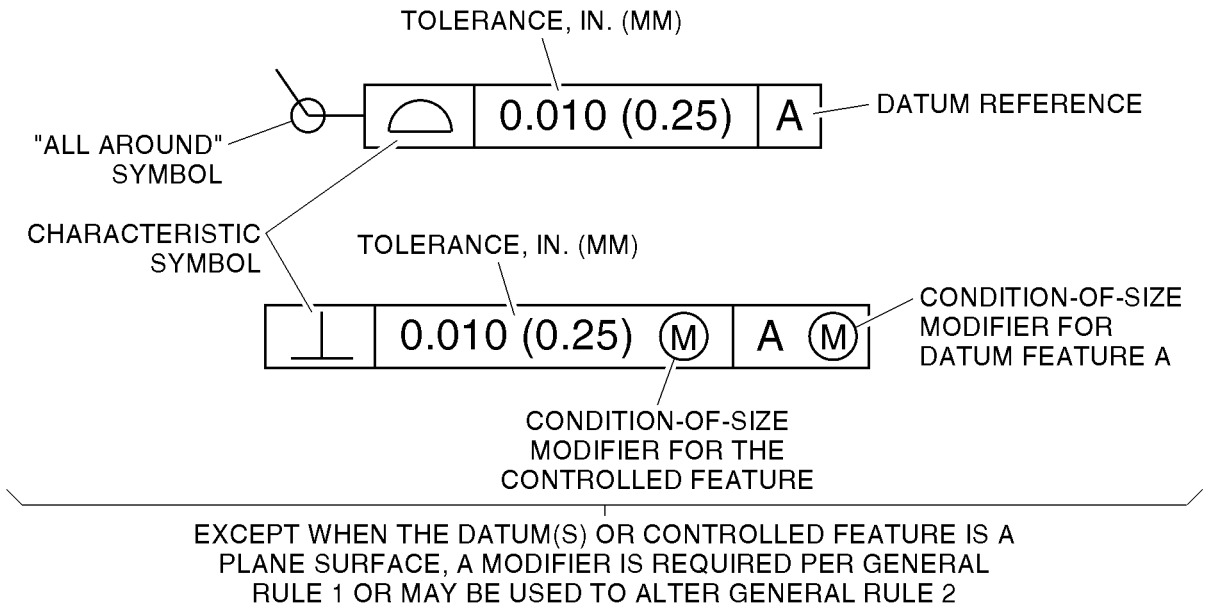

Figure INTRO-1. (Sheet 1 of 2) Geometric Tolerance Symbols

GENERAL RULES

1. POSITION (⌖) TOLERANCES AND THEIR RELATED DATUMS APPLY AT MMC OR RFS AS SPECIFIED IN THE FEATURE CONTROL FRAME.

2. EXCEPT FOR POSITION (⌖), ALL TOLERANCES AND THEIR RELATED DATUMS APPLY RFS UNLESS OTHERWISE SPECIFIED.

3. ALL GEOMETRIC TOLERANCES ARE SPECIFIED AS TOTAL VALUES (TOTAL DIAMETER, TOTAL THICKNESS, TOTAL WIDTH, OR TOTAL ON RADIUS).

4. WHEN TWO DATUM FEATURES ARE REFERENCED IN HYPHENATED FORM, [A-B], A SINGLE DATUM IS ESTABLISHED BY THE TWO FEATURES.

5. WHEN TWO OR THREE DATUMS ARE REFERENCED IN SUCCEEDING FRAMES, [A][B][C], THE ORDER OF PRECEDENCE IS LEFT TO RIGHT.

SAMPLE INTERPRETATIONS

[-A-] THIS IS DATUM FEATURE A WHICH IS USED TO CREATE DATUM A IN THE PROCESSING EQUIPMENT.

[▱][0.010 (0.25)] THIS SURFACE MUST BE FLAT WITHIN 0.010 IN. (0.25 MM) TOTAL (MEETING EITHER SYSTEM WILL ACCEPT THE PART).

[//][0.010 (0.25)][B] THIS IS DATUM FEATURE C AND, RFS MUST BE PARALLEL TO DATUM B, RFS, WITHIN 0.010 IN. (0.25 MM) TOTAL.
[-C-]

[↗][0.0005 (0.013)][A-B] EACH CIRCULAR ELEMENT OF THIS FEATURE, RFS, MUST NOT RUN OUT MORE THAN 0.0005 IN. (0.013 MM) FIM, WITH RESPECT TO THE DATUM ESTABLISHED BY FEATURES A AND B, BOTH RFS.

[⌖][Ø 0.010 (0.25) Ⓜ][A][B Ⓜ][C Ⓜ] THE AXIS OF THIS FEATURE, WHEN THIS FEATURE IS AT MMC, MUST BE LOCATED WITHIN 0.010 IN. (0.25 MM) DIAMETER OF THE TRUE (BASIC) LOCATION ESTABLISHED IN RELATION TO THE PRIMARY SURFACE DATUM A, SECONDARY DATUM B AT MMC, AND TERTIARY DATUM C AT MMC.

[⊥][Ø 0.010 (0.25) Ⓜ][A]
[0.500 (12.7) Ⓟ] THE AXIS OF THIS FEATURE, WHEN THIS FEATURE IS AT MMC, MUST BE PERPENDICULAR TO DATUM A, RFS, WITHIN A 0.010 IN. (0.25 MM) DIAMETER TOLERANCE ZONE PROJECTED 0.500 IN. (12.7 MM) ABOVE THE SURFACE.

[∠][⌀] THE ANGULAR ORIENTATION OF THIS FEATURE NEED NOT BE CONTROLLED WITH RESPECT TO ANY OTHER FEATURE.

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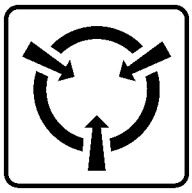
Figure INTRO-1. (Sheet 2 of 2) Geometric Tolerance Symbols

(5) The symbols in Figure INTRO-2 show ESDS and moisture sensitive devices.



ESDS

MOISTURE SENSITIVE

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Figure INTRO-2. Symbols

D. Units of Measure (Subtask 33-42-30-99F-004-A01)

(1) Measurements, weights, temperatures, dimensions, and other values are expressed in the USMS followed by the appropriate SI metric units in parentheses. Some standard tools or parts such as drills, taps, bolts, nuts, etc. do not have an equivalent.

E. Page Number Block Explanation (Subtask 33-42-30-99F-005-A01)

(1) The data in this manual is divided into sections. A standard page number block system is used. Page number blocks are shown in Table INTRO-1.

Table INTRO-1. Page Number Blocks

Section	Page Number Block
Description and Operation	1 thru 999
Testing and Fault Isolation	1001 thru 1999
Schematic and Wiring Diagrams	2001 thru 2999
Disassembly	3001 thru 3999
Cleaning	4001 thru 4999
Inspection/Check	5001 thru 5999
Repair	6001 thru 6999
Assembly	7001 thru 7999
Fits and Clearances	8001 thru 8999
Special Tools, Fixtures, Equipment and Consumables	9001 thru 9999
Illustrated Parts List	10001 thru 10999[1]
Special Procedures	11001 thru 11999
Removal	12001 thru 12999
Installation	13001 thru 13999
Servicing	14001 thru 14999
Storage (Including Transportation)	15001 thru 15999
Rework (Service Bulletin Accomplishment Procedures)	16001 thru 16999

Table INTRO-1. Page Number Blocks (Cont)

Section	Page Number Block

NOTE:

1 The IPL is the last page number block in the document.

F. Illustration (Subtask 33-42-30-99F-006-A01)

(1) Some of the exploded view illustrations shown in the ILLUSTRATED PARTS LIST section are also referenced in the DISASSEMBLY, CLEANING, INSPECTION/CHECK, REPAIR, ASSEMBLY, and/or FITS AND CLEARANCES sections of this manual.

(2) Illustrations that support the individual items are shown by the item nomenclature, and in parenthesis, the item number followed by the basic figure number, i.e. washer (90, IPL Figure 1). Item numbers refer to the same IPL figure until a different IPL figure is specified.

(3) Illustrations with no specific designation are applicable to all units.

G. Application of Maintenance Task Oriented Support System (MTOSS) (Subtask 33-42-30-99F-007-A01)

(1) In accordance with the ATA Specification 2200, this publication uses a Maintenance Task Numbering System which make the maintenance procedures in this manual compatible with an automated shop environment.

(2) The system uses standard and unique number combinations to identify maintenance tasks and subtasks.

(3) The MTOSS structure is the logical approach to organizing maintenance tasks and subtasks. The MTOSS numbering system includes the ATA Chapter-Section-Subject number as well as a function code and unique identifiers. The purpose of incorporating the MTOSS numbering system is to provide a means for the automated sorting, retrieval, and management of digitized data.

(4) Section and Sub-section Numbering System

(a) All procedures in this publication have TASK and SUBTASK numbers at key data retrieval points. The numbers provide the following:

- Identification of the hardware (part or parts) primary to the TASK
- Identification of the maintenance function applied to the part or parts
- A unique identifier for a set of instructions (known as TASK or SUBTASK)
- Identification of alternate methods and configuration differences that change the procedure applied to the TASK
- Identification of airline changes to a TASK or SUBTASK.

(5) Components of Task and Subtask Number

(a) The numbering system is an expansion of the ATA three-element numbering system. The number has seven elements. The first five elements are necessary for each TASK or SUBTASK. The sixth and seventh elements are applied only when necessary. Refer to Figure INTRO-3.

(b) Elements 1, 2, and 3 identify the ATA Chapter-Section-Subject number of the pageblock.

(c) Element 4 defines the maintenance function being performed. This element is a three position element. The third position is zero filled when further definition is not required. If required, the manufacturer will use the numbers 1 thru 9 or letters A thru Z, excluding the letters I and O. Refer to Table INTRO-2.

(d) Element 5 provides a unique identification for each TASK or SUBTASK number which is similarly numbered through the first four elements.

- TASKS are numbered from 801 thru 999.
- SUBTASKS are numbered from 001 thru 800.

(e) Element 6 is a three position alphanumeric element used for identification of differences in configurations, methods or techniques, variations of standard practice applications, etc.

(f) Element 7 provides coding of those tasks or subtasks that have been changed by the customer (e.g., those tasks or subtasks accomplished by an outside repair source).

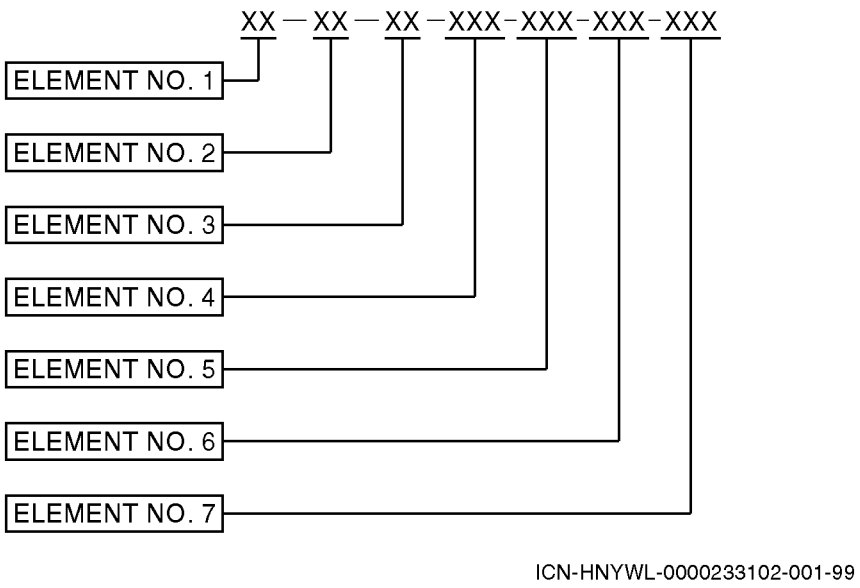

Figure INTRO-3. MTOSS Code Positions

Table INTRO-2. MTOSS Function Code Definitions

Code	Function	Definition
000	REMOVAL AND DISASSEMBLY	
010	Removal	Removal of the engine/component from a workstand, transport dolly, test stand, etc., or aircraft.
020	Remove Modular Sections	This is the first echelon of disassembly which consists of sectionalization of the unit/engine into primary modular sections. Modular sections are identified by the third element of the ATA number when removed from the unit/engine.

Table INTRO-2. MTOSS Function Code Definitions (Cont)

Code	Function	Definition
030	Disassemble Modular Sections	This is the second echelon of disassembly which consists of disassembly of the modular sections into subassemblies after removal from the unit/ engine. Modular section designations appear in the second element of the ATA number for this echelon of disassembly.
040	Disassemble Subassemblies	This is the third echelon of engine disassembly which consists of disassembly of subassemblies to the piece part level. The subassemblies are identified by the third element of the ATA number.
050	Remove Accessory/Power Plant Components	This consists of removing individual accessory/ power plant components from either installed or uninstalled engines.
060	Disassemble Accessory	This involves disassembly of accessories/ components into subassemblies.
070	Disassemble Accessory Subassembly	This involves disassembly of accessories/ components subassemblies into piece parts.
080	Remove Test Equipment	This consists of removing equipment and instrumentation after accessory/component test.
090	Disassemble Support Equipment	This consists of disassembly of support equipment required to maintain said support equipment.
100	CLEANING	
110	Chemical	Removal of surface deposits from a part by use of a chemical cleaning agent. After being dissolved, the deposit is washed or rinsed away after a soaking period. Also includes chemical power flushing.
120	Abrasive	Removal of surface deposits from a part by wet or dry particle impingement.
130	Ultrasonic	Removal of surface deposits and entrapped material by use of high frequency sound waves to produce cavitation at the surface of the part. Cleaning is performed in a liquid bath that transmits the sound energy and keeps the removed material in suspension.
140	Mechanical	Removal of surface deposits from a part by use of a brush, felt bob, sandpaper, or other hand or mechanical action.
150	Unassigned	

Table INTRO-2. MTOSS Function Code Definitions (Cont)

Code	Function	Definition
160	Miscellaneous	Removal of deposits from parts with compressed air, miscellaneous hand cleaning, and various combinations of cleaning procedures.
170	Foam/Water Wash	Removal or post emulsified fluorescent penetrant via an agitated water wash, automatic spray rinse, or an aqueous remover aerated to produce a foam.
180	Testing of Solutions	Test used to assist in identifying certain materials by electro-mechanically determining the presence or absence of known constituents.
190	Unassigned	
200	INSPECTION	
210	Check	A thorough visual examination of components, accessories, subsystems, and piece parts to detect structural failure, deterioration or damage: and to determine the need for corrective action. For example: exterior surfaces, electronic circuit cards, gears, control systems, linkages, accessories, components, tubing, wiring and connections, safety wiring, fasteners, clamps, etc., are inspected to verify proper condition and acceptability for continued service.
220	Visual/Dimensional	A comparison of the dimensions and material conditions of parts, subassemblies, and assemblies with the specifications contained in technical manuals and/or blueprints, to detect deviations from established standard and limits and determine the acceptability for continued service, repair, or need to discard the item. A visual/dimensional function code is also required to verify that proper corrective maintenance has been accomplished. Although some of these tasks may not require measurements, a complete spectrum of tasks/sub tasks requires a variety of measuring equipment to determine runout, concentricity, flatness, parallelism, hardness, thickness, clarity, dimensions, etc.
230	Penetrant	Fluorescent penetrant inspection to detect surface cracks.
240	Magnetic	Magnetic particle inspection to detect surface cracks in magnetic materials.

Table INTRO-2. MTOSS Function Code Definitions (Cont)

Code	Function	Definition
250	Eddy Current	Inspection for subsurface cracks, porosity, inclusions, or other nonhomogeneous material structure by use of high frequency electromagnetic wave equipment. Parts are scanned and compared to similar parts or test specimens having known material defects.
260	X-Ray	Inspection for subsurface cracks, porosity, inclusions, or other nonhomogeneous material structure by use of x-ray techniques.
270	Ultrasonic	Inspection for subsurface cracks, porosity, inclusions, or other nonhomogeneous material structure by use of contact pulse echo ultrasonic techniques.
280	Special	Any special inspection to determine the integrity of a part for continued operation In-Service or qualitative analysis.
290	Unassigned	
300	REPAIR	
310	Welding and Brazing	The joining of pieces by welding (fusion, resistance, spot, electron beam, plasma arc), brazing (furnace, torch, induction), or soldering. This category includes hard facing.
320	Machining	The process of obtaining a desired shape or finish by grinding, turning, boring, reaming, broaching, milling, drilling, lapping, honing, sizing, polishing, buffing, cutting, forming, stamping, blanking, etc.
330	Stripping and Plating	Removing or applying a metallic coating on a surface by mechanical, chemical, or electrical means. Plating of chromium, cadmium, tin, etc., to build up the size of a part or provide surface protection. Includes masking or waxing prior to the process.
340	Plasma and Flame Spraying	The application of a protective coating to a part by feeding a powder into an ionized gas stream. Flame spraying uses a fuel oxygen flame to melt and propel metal onto parts to build up the size or provide surface protection.

Table INTRO-2. MTOSS Function Code Definitions (Cont)

Code	Function	Definition
350	Miscellaneous Repairs	Repairing parts by hand (cutting, drilling, polishing, grinding, lapping, riveting, blending, routing, fitting, burring, planishing, sanding, sawing, recambering, drilling, tapping, heating, chilling) and including miscellaneous disassembly and assembly required.
360	Bonding and Molding/Sealing	Joining and curing of parts with an adhesive or fusible material (including silicone, fiberglass, glues).
370	Heat Treating	Controlled heating and cooling of a material to obtain the desired physical property (includes annealing, tempering, quenching, stress relieving, solution heat treat, etc.).
380	Surface Treating	Treating the surface of a part by painting, varnishing, aluminizing, Teflon coating, zinc chromate priming, tumble finishing, shot peening, etc. Baking and masking processes are included.
390	Machine Riveting and Flaring	Joining of parts by riveting and flaring the rivet.
400	INSTALLATION AND ASSEMBLY	
410	Install	Installation of the unit/engine onto a workstand, transport dolly, test stand, or aircraft.
420	Install Modular Sections	The third echelon of assembly consisting of assembly of the modular assemblies into a complete unit/engine assembly. The modular sections are identified by the third element of the ATA number.
430	Assemble Modular Sections	The second echelon of assembly consisting of assembling subassemblies into modular sections. The modular section is identified by the second element of the ATA number.
440	Assemble Subassemblies	The first echelon of assembly consisting of assembling piece parts into subassemblies. The subassemblies are identified by the third element of the ATA number.
450	Install/Close Items Removed/Opened for Access	Installation or closing of access plates, closing of ports, installation of components, tubing or any item which was removed or opened in order to provide access to perform the task.
460	Assemble Accessory	Assemble accessory components.
470	Assemble Accessory Subassembly	Assembly of accessory subassembly components.

Table INTRO-2. MTOSS Function Code Definitions (Cont)

Code	Function	Definition
480	Install Test Equipment	Install equipment and instrumentation required for accessory component test.
490	Assemble Support Equipment	Any assembly required to maintain support equipment.
500	MATERIAL HANDLING	
510	Shipping	The movement of any part, subassembly, assembly, or component from the time it is packaged until it reaches its destination.
520	Receiving	The receipt activity for any incoming part, subassembly, assembly, or component.
530	Packing	Installing parts, subassemblies, assemblies, or components into shipping containers.
540	Unpacking	Removing parts, subassemblies, assemblies, or components from shipping containers.
550	Storage	Safekeeping of parts, subassemblies, assemblies, or components until required for use.
560	Marshaling/Positioning	Marshaling is collection of parts, subassemblies, and accessories prior to release for assembly. Positioning is movement from one fixed state to another.
570	Engine Ferry/Pod Maintenance	Necessary preparations before and after transporting an engine by aircraft ferry method.
580	Unassigned	
590	Unassigned	
600	SERVICING/PRESERVING/LUBRICATING	
610	Servicing	Action required to sustain a unit or system in proper operating status including priming with applicable fluids prior to use.
620	Preserving	Preparation of a unit, part, assembly, etc., for safekeeping from decomposition or deterioration. Includes preparation for storage (applying a preservative layer, desiccants, etc.).
630	Depreserving	Removing preservatives, desiccants, etc., from a unit, part, assembly, etc., prior to installation or operation.

Table INTRO-2. MTOSS Function Code Definitions (Cont)

Code	Function	Definition
640	Lubricating	Applying oil, grease, dry film, or silicon lubricants on moving parts to reduce friction or cool the item.
650	Unassigned	
660	Unassigned	
670	Unassigned	
680	Unassigned	
690	Unassigned	
700	TESTING/CHECKING	
710	Oil Flow	Measuring the flow of oil through components or compartments under specific conditions.
720	Air Flow	Measuring the flow of air through components or compartments under specific conditions.
730	Fuel Flow	Function checks and flow measurements through the part or system being tested.
740	Water Flow	Function checks and flow measurements through the part or system being tested.
750	Electrical/Return to Service	Functional tests (manual or ATE) of the system or component as well as measurement of electrical or electronic parameters designed to determine whether the item can be returned to service. May include fault isolation procedures for components that require close correlation between test results and fault indications.
760	Engine	Operation of an engine to establish systems function or operation under specific conditions to measure performance.
770	Accessory/Bite	Testing of an accessory to ensure proper operation or function.
780	Pressure Check	Testing to establish the ability of a normally pressurized component or system to operate properly.
790	Leak Check	Determine the ability of a component or system to operate without leaking.
800	MISCELLANEOUS	

Table INTRO-2. MTOSS Function Code Definitions (Cont)

Code	Function	Definition
810	Fault Isolation	Operation of an engine at constant thrust level or identical Engine Pressure Ratio (EPR) to locate the prime suspect deficient system: operating an improperly functioning system or component to locate the cause; or performing a series of checks to isolate a failed part or component.
820	Adjusting/Aligning/Calibrating	Making a physical correction to ensure proper placement or operation of a system or component.
830	Rigging	Hooking-up, arranging, or adjusting a component or accessory linkage for proper operation.
840	Service Bulletin Incorporation	Performing the work specified in the service bulletin. Provides for identification of modification tasks at the task level with subtasks recognizing any functional changes (chemical, visual/ dimensional, cleaning, machining, etc.) necessary to incorporate the service bulletin.
850	Part Number Change/Re-identification	Change of part number, application of part number by transfer, engrave repair number, etc.
860	Unassigned	
870	Description and Operation	Electrical and mechanical description of the unit or component. Includes leading particulars, descriptions, limitations, specifications, and theory of operation.
878	Schematic and Wiring Diagrams	Schematic diagrams, wiring diagrams, interconnect diagrams and wire lists.
880	Approved Vendor Processes	Includes processes that may be proprietary and controlled by a particular manufacturer, or by nonproprietary and approved for application by conforming vendors.
890	Airline Maintenance Program (Customer Use)	
900	Unassigned	
910	Special Equipment Maintenance	Identification of tasks to maintain special support equipment.
920	Standard Equipment Maintenance	Identification of tasks to maintain standard support equipment.
930	Tool Fabrication	Includes fabricating any tool for which procedures to use are included in the manual.

Table INTRO-2. MTOSS Function Code Definitions (Cont)

Code	Function	Definition
940	Special Tools, Equip, and Consumables Listing	Listing of all special tools, standard equipment, special equipment, and consumables required to perform maintenance on the unit or component.
94A	Consumables	
94B	Special Tools/Non Std Tools	
94C	Fixtures/Test Equipment	
94D	Standard Tools	
950	Illustrated Parts List (Detailed Parts List)	Section of IPL/IPC that contains parts description and identification in top-down break down sequence.
960	Illustrated Parts List (Equipment Designation Index)	Section of IPL/IPC that contains equipment designators cross-referenced to detailed parts list.
970	Illustrated Parts List (Numerical Index)	Section of IPL/IPC that contains an alphanumeric listing of all parts in the unit cross-referenced to the detailed parts list.
980	Illustrated Parts List (Alternate Vendor Index)	Optional section of IPL/IPC that contains an alphanumeric listing of all parts in the unit that have more than one vendor source.
990	Illustrations, Tables, Front Matter, Etc.	
99A	Tables	
99B	Illustrations	
99C	Front Matter Pageblock (TASK Level MTOSS) Front Matter Task (Collection of Subtask MTOSS)	
99D	Access	
99E	References	
99F	General/Introduction	

H. Standard Practices Manual (Subtask 33-42-30-99F-008-A01)

(1) Standard cleaning, check, repair, and assembly procedures applicable to multiple models can be found in a standard practices manual. Refer to Paragraph 3.

I. Electrostatic Discharge (Subtask 33-42-30-99F-009-A01)

(1) Touch the items susceptible to electrostatic discharge in accordance with MIL-HDBK-263. Refer to MIL-STD-1686 for definition of the standards and conditions.

2. **Customer Support** (TASK 33-42-30-99F-802-A01)

A. **Honeywell Aerospace Online Technical Publications Website** (Subtask 33-42-30-99F-010-A01)

(1) Go to the Honeywell Online Technical Publications Website at (www.myaerospace.com).

- To download or see publications online
- To order a publication
- To tell Honeywell of a possible data error in a publication.

B. **Honeywell Aerospace Contact Team** (Subtask 33-42-30-99F-011-A01)

(1) If you do not have access to the Honeywell Technical Publications Website, or if you need to speak to personnel about non-Technical Publication matters, the Honeywell Aerospace Contact Team gives 24/7 customer service to Air Transport & Regional, Business & General Aviation, and Defense & Space customers around the globe.

- Telephone: 800-601-3099 (Toll Free U.S.A./Canada)
- Telephone: 602-365-3099 (International).

3. **References** (TASK 33-42-30-99F-803-A01)

A. **Honeywell/Vendor Publications** (Subtask 33-42-30-99F-012-A01)

(1) Honeywell publications related to the content of this manual are shown in the list that follows:

- ATA No. 20-00-04 (Pub. No. A09-1100-001), Handling, Storage, and Shipping Procedures for Honeywell Avionics Equipment Instruction Manual
- ATA No. 20-00-03 (Pub. No. A09-1100-004), Standard Repair Procedures for Honeywell Avionics Equipment Instruction Manual.

B. **Other Publications** (Subtask 33-42-30-99F-013-A01)

(1) These publications are standard references. Check for latest version of publication.

- The United States GPO Style Manual (available at http://www.gpo.gov/fdsys/pkg/GPO-STYLEMANUAL-2008/content-detail.html)
- IEEE Std 260.1, Standard Letter Symbols for Units of Measurement (available from the American National Standards Institute at http://www.ansi.org)
- ASME Y14.38, Abbreviations for Use on Drawings and Related Documents (available from the American National Standards Institute at http://www.ansi.org)
- ASME Y14.5, Dimensioning and Tolerancing (available from the American National Standards Institute at http://www.ansi.org)
- ANSI/IEEE Std 91, Graphic Symbols for Logic Functions (available from the American National Standards Institute at http://www.ansi.org)
- CAGE codes and manufacturers' addresses are available at https://cage.dla.mil.
- IEEE 315/ANSI Y32.2, Graphic Symbols for Electrical and Electronics Diagrams (available from the American National Standards Institute at http://www.ansi.org)

- MIL-HDBK-263, Electrostatic Discharge Control Handbook for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices) (Metric) (available from any military standards database)
- MIL-STD-1686, Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices) (Metric) (available from any military standards database).

4. **Component Maintenance Levels** (TASK 33-42-30-99F-804-A01)

A. **General** (Subtask 33-42-30-99F-014-A01)

(1) This CMM contains one or more component maintenance levels for repair. The component maintenance levels of repair are shown below as specified in the ARINC Report 663.

(2) Component maintenance level 1 is maintenance operations with an end result of determining LRU serviceability. No maintenance action is performed to repair the LRU.

(3) Component maintenance level 1 is limited to return to service testing and configuration confirmation of the LRU, including all software loading as necessary for return to service and the pre-loading of field loadable software.

(4) Component maintenance level 2 is maintenance operations with an end result of restoring LRU serviceability. Maintenance procedures are limited to the replacement of subassemblies.

(5) Component maintenance level 2 embodies those activities necessary to:

- Fault isolate to the defective subassembly
- Replace such subassemblies
- Return the LRU to service.

(6) Component maintenance level 2 includes programming, calibrations, alignments, tuning, etc., necessary to return the LRU to service without the replacement of basic parts.

(7) Component maintenance level 3 is maintenance operations with an end result of restoring a LRU or a subassembly to serviceability. Maintenance includes repair of the LRU and or its subassemblies by any and all repair processes, including but not limited to, replacement of defective basic parts such as processor chips, transistors, or chassis mounted parts.

(8) Component maintenance level 3 embodies those activities necessary to:

- Fault isolate to the basic part level
- Replace/repair such parts
- Return the LRU or subassembly to service.

(9) Component maintenance level 3 includes all programming, calibrations, alignments, tuning, etc., necessary to return the LRU/SRU to service.

(10) If the service location does level 3 repairs, it must have the equipment identified in SPECIAL TOOLS, FIXTURES, EQUIPMENT, AND CONSUMABLES or the equivalent alternative(s).

5. **Acronyms and Abbreviations** (TASK 33-42-30-99F-805-A01)

A. **General** (Subtask 33-42-30-99F-015-A01)

(1) The abbreviations are used in agreement with ASME Y14.38.

(2) Acronyms and non-standard abbreviations used in this publication are as follows:

Table INTRO-3. List of Acronyms and Abbreviations

Term	Full Term
ANSI	American National Standards Institute
ARINC	Aeronautical Radio Incorporated
ASME	American Society of Mechanical Engineers
ATA	Air Transport Association
ATE	automated test equipment
AWG	american wire gage
CAGE	commercial and government entity
CMM	component maintenance manual
DPL	detailed parts list
EDI	equipment designator index
ESDS	electrostatic discharge sensitive
GPO	Government Printing Office
Hz	hertz
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
IPC	illustrated parts catalog
IPL	illustrated parts list
kg	kilograms
kPa	kilopascal
LRU	line replaceable unit
mm	millimeter
MTOSS	maintenance task oriented support system
NHA	next higher assembly
NI	numerical index
No.	number
PN	part number
Pub.	publication
SI	International System of Units
SRU	shop replaceable unit
TR	temporary revision
USMS	United States Measurement System
VAC	volts alternating current

6. **Process Verification** (TASK 33-42-30-99F-806-A01)

A. **Verification Data** (Subtask 33-42-30-99F-016-A01)

(1) Honeywell does a verification of these technical instructions by performance or by simulation of the necessary procedures. Performance shows that the procedures were checked by the use of the manual. Simulation shows that the applicable personnel looked at the procedure in the manual and that the procedure is technically correct. The dates of verification for this manual are given in Table INTRO-4.

Table INTRO-4. Verification Data

Section	Method	Date
Testing and Fault Isolation	Performance	26 Apr 2000
Disassembly	Performance	26 Apr 2000
Assembly	Performance	26 Apr 2000
Engineering Technical Review	N/A	4 Mar 2020

7. **Software History** (TASK 33-42-30-99F-807-A01)

A. **Software Data** (Subtask 33-42-30-99F-017-A01)

(1) Not applicable.

8. **History of Changes** (TASK 33-42-30-99F-808-A01)

A. **Modification/Configuration History** (Subtask 33-42-30-99F-018-A01)

(1) Not applicable.

B. **Change History for Parts List** (Subtask 33-42-30-99F-019-A01)

(1) Not applicable.

9. **Service Information Documents** (TASK 33-42-30-99F-809-A01)

A. **Applicable Service Information Documents** (Subtask 33-42-30-99F-020-A01)

(1) Refer to Table INTRO-5 for other applicable service information documents not listed in the Service Bulletin List.

Table INTRO-5. Service Information Documents

Document Type	Document Number/Revision Number	Title	Date Put In Manual
Spare Parts Bulletin	D200808000097	Replace Ty-Rap, PN TL015 with PN TL160.	25 Aug 2014

DESCRIPTION AND OPERATION

1. **Description** (TASK 33-42-30-870-801-A01)

A. **General** (Subtask 33-42-30-870-001-A01)

(1) This section contains a description of the electric tail logo floodlight.

(2) Refer to Table 1 for the leading particulars.

Table 1. Leading Particulars

Characteristic	Specification
Diameter	6.929 in. (176.00 mm)
Depth	4.56 in. (118.10 mm)
Weight	2.92 pounds (1.30 kg)
Power	115 VAC, 400 Hz

(3) Refer to Figure 1 for the electric tail logo floodlight.

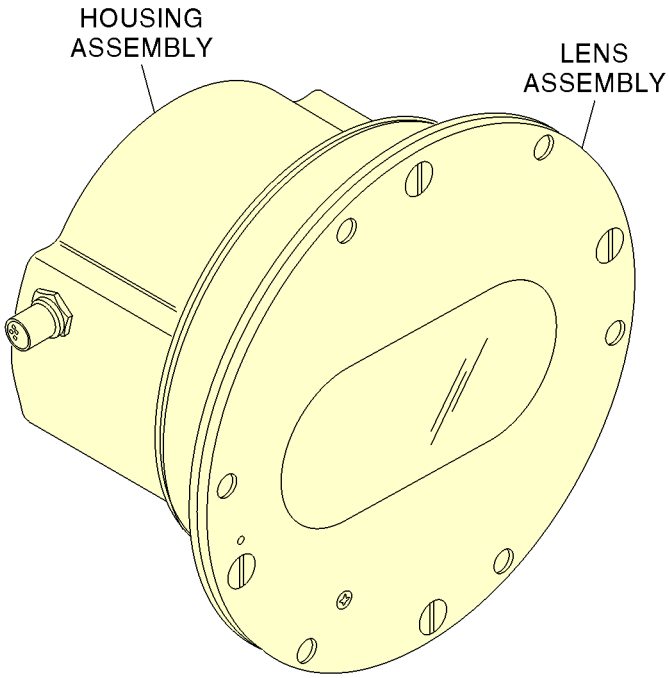

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Figure 1. Electric Tail Logo Floodlight

B. **Applicable Publications** (Subtask 33-42-30-99C-001-A01)

(1) The list that follows identifies Honeywell publications that are related to this section:

- Not applicable.

C. **Electric Tail Logo Floodlight** (Subtask 33-42-30-870-002-A01)

(1) The floodlight provides area illumination and is mounted on the horizontal stabilizers of the aircraft. The floodlight has two 12 VAC, 100-watt halogen lamps, a lens assembly, a housing assembly, and a transformer assembly that is mounted on a light subassembly.

(2) The floodlight is turned ON and OFF by an external switch inside the cockpit.

2. **Operation** (TASK 33-42-30-870-802-A01)

A. **Electric Tail Logo Floodlight** (Subtask 33-42-30-870-003-A01)

(1) An input voltage of 115 VAC, 400 Hz is applied to the transformer assembly and is stepped down to 12 VAC to energize the floodlight.

TESTING AND FAULT ISOLATION

1. **Planning Data** (TASK 33-42-30-99C-801-A01)

   A. **Reason for the Job** (Subtask 33-42-30-99C-002-A01)

      (1) Use the test procedures in this section to test and isolate faults.

      (2) The function of the test procedures is to find if there is a failure in the operation of the LRU.

   B. **Job Setup Data** (Subtask 33-42-30-99C-003-A01)

      (1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials unless specified differently. The user must find equivalent alternatives.

      (2) Refer to Table 1001 for the special tools, fixtures, and equipment in this section.

      (3) CAGE codes and manufacturers' addresses are available at https://cage.dla.mil.

Table 1001. Special Tools, Fixtures, and Equipment

Number	Description	Source
	variable regulated power supply (0-115 VAC, 400 Hz, 2 amp minimum)	commercially available
Model 87	digital multimeter	CAGE: 89536

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(4) Refer to Table 1002 for the consumable materials in this section.

Table 1002. Consumables

Number	Description	Source
A-A-59323	cleaning cloth (MIL-C-85043, Type I)	commercially available

(5) The list that follows identifies Honeywell publications that are related to this section:

- Not applicable.

2. **Procedure** (TASK 33-42-30-810-801-A01)

A. **Job Setup** (Subtask 33-42-30-810-001-A01)

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

CAUTION: DO NOT DROP OR HIT THE ELECTRIC TAIL LOGO FLOODLIGHT DURING THESE PROCEDURES. THE ELECTRIC TAIL LOGO FLOODLIGHT CONTAINS AN ASSEMBLY THAT CAN BE DAMAGED FROM INCORRECT USE.

CAUTION: DO THESE PROCEDURES IN A CLEAN ENVIRONMENT TO PREVENT DAMAGE TO MECHANICAL COMPONENTS.

(1) Obey the precautions.

(2) Conduct all tests at a temperature of 65 to 85°F (18 to 29°C) and in the order presented, unless otherwise noted. Failure of any test is cause for failure of the floodlight. Correct the fault before testing is continued.

(3) Review any shipping tags or forms to determine cause for removal from aircraft.

(4) Wipe the floodlight with an A-A-59323 cleaning cloth to remove dirt, dust and foreign material.

(5) Visually inspect the floodlight for signs of missing, broken, bent or cracked parts. Damaged parts must be replaced before the floodlight is tested.

(6) Refer to Figure 1001 for the test setup.

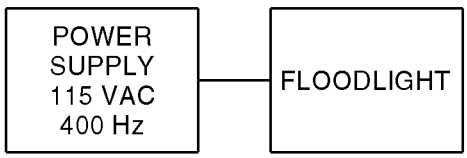

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Figure 1001. Test Setup

(7) Make the test setup as follows:

(a) Make sure the variable regulated power supply is set to zero volts and is OFF.

(b) Connect floodlight to the test setup.

B. **Testing of the Electric Tail Logo Floodlight** (Subtask 33-42-30-810-002-A01)

(1) Turn the variable regulated power supply ON and adjust to 115 VAC.

- Lamps (75, IPL Figure 1) must turn on with no variance in intensity.

(2) Turn variable regulated power supply OFF and disconnect floodlight from test setup.

C. Post Test Procedures (Subtask 33-42-30-810-003-A01)

(1) If floodlight passed all the tests, prepare it for shipment or storage. Refer to STORAGE (INCLUDING TRANSPORTATION), for details.

(2) If floodlight did not pass all the tests, repair or replace defective parts and repeat all tests. Refer to Table 1003, for details.

D. Fault Isolation of the Electric Tail Logo Floodlight (Subtask 33-42-30-810-004-A01)

Table 1003. Fault Isolation

Fault	Probable Cause	Corrective Action
Lamp(s) (75, IPL Figure 1) does not turn on.	1. Defective lamp(s) (75).	1. Check lamp filament with a Model 87 digital multimeter. Replace lamp(s) (75).
	2. Defective transformer assembly (150).	2. Use a Model 87 digital multimeter to check continuity of transformer assembly (150). Replace transformer assembly (150).
	3. Open contact (part of connector (160)).	3. Check continuity of contact (part of connector (160)) with a Model 87 digital multimeter. Replace connector (160).
Lamp (75) turns on dimly.	Corroded or loose electrical connections.	Clean and/or attach electrical connections.

E. Job Close-up (Subtask 33-42-30-810-005-A01)

(1) Remove all tools, equipment, used parts, and materials from the work area.

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SCHEMATIC AND WIRING DIAGRAMS

1. **Planning Data** (TASK 33-42-30-99C-802-A01)

   A. **Reason for the Job** (Subtask 33-42-30-99C-004-A01)

      (1) This section gives schematic and wiring diagrams for the LRU.

      (2) Use these diagrams as an aid to fault isolate the LRU.

   B. **Job Setup Data** (Subtask 33-42-30-99C-005-A01)

      (1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials unless specified differently. The user must find equivalent alternatives.

      (2) Refer to Table 2001 for the special tools, fixtures, and equipment in this section.

      (3) CAGE codes and manufacturers' addresses are available at https://cage.dla.mil.

Table 2001. Special Tools, Fixtures, and Equipment

Number	Description	Source
Not applicable	Not applicable	Not applicable

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(4) Refer to Table 2002 for the consumable materials in this section.

NOTE: For the wire color identified by (-C), refer to the applicable wire list.

Table 2002. Consumables

Number	Description	Source
Not applicable	Not applicable	Not applicable

(5) The list that follows identifies Honeywell publications that are related to this section:

- Not applicable.

2. **Schematic and Wiring Diagrams** (TASK 33-42-30-878-801-A01)

   A. **Schematic Diagrams** (Subtask 33-42-30-878-001-A01)

      (1) Not applicable.

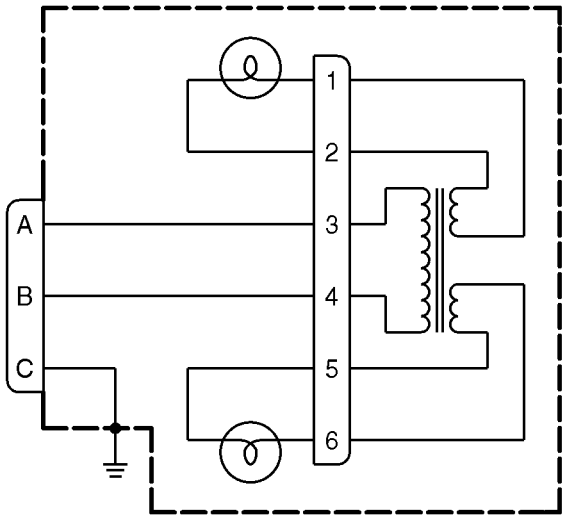
   B. **Wiring Diagrams** (Subtask 33-42-30-878-002-A01)

      (1) The wiring diagram for the electric tail logo floodlight is given in Figure 2001.

      (2) Table 2003 shows the wiring diagrams in this section.

Table 2003. Wiring Diagrams

Nomenclature	PN	Figure Number
Light Subassembly	31-8573	Figure 2001



E31-8573-1-D

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Figure 2001. Light Subassembly, PN 31-8573, Wiring Diagram

DISASSEMBLY

1. **Planning Data** (TASK 33-42-30-99C-803-A01)

   A. Reason for the Job (Subtask 33-42-30-99C-006-A01)

   (1) Use these procedures to remove parts from the LRU to do the cleaning, checks, and repair. Do only those procedures of disassembly that are necessary to remove the defective parts.

   B. Job Setup Data (Subtask 33-42-30-99C-007-A01)

   (1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials unless specified differently. The user must find equivalent alternatives.

   (2) Refer to Table 3001 for the special tools, fixtures, and equipment in this section.

   (3) CAGE codes and manufacturers' addresses are available at https://cage.dla.mil.

Table 3001. Special Tools, Fixtures, and Equipment

Number	Description	Source
	sharp knife	commercially available

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(4) Refer to Table 3002 for the consumable materials in this section.

Table 3002. Consumables

Number	Description	Source
Not applicable	Not applicable	Not applicable

(5) The list that follows identifies Honeywell publications that are related to this section:

- Not applicable.

2. **Procedure** (TASK 33-42-30-000-801-A01)

A. **Job Setup** (Subtask 33-42-30-000-001-A01)

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

WARNING: THIS HALOGEN CYCLE LAMP IS PRESSURIZED AND MAY SHATTER. DO NOT OPERATE IN EXCESS OF RATED VOLTAGE. PROTECT LAMP AGAINST ABRASIONS AND SCRATCHES. REMOVE GREASE OR FINGERPRINTS WITH A GREASE-FREE SOLVENT. WEAR PROTECTIVE EYEGLASSES AND CLOTHING WHEN HANDLING LAMP. TURN POWER OFF WHEN INSTALLING LAMP AND LET COOL BEFORE REMOVING LAMP. DISPOSE OF LAMP WITH CARE.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

CAUTION: DO NOT DROP OR HIT THE ELECTRIC TAIL LOGO FLOODLIGHT DURING THESE PROCEDURES. THE ELECTRIC TAIL LOGO FLOODLIGHT CONTAINS AN ASSEMBLY THAT CAN BE DAMAGED FROM INCORRECT USE.

CAUTION: DO THESE PROCEDURES IN A CLEAN ENVIRONMENT TO PREVENT DAMAGE TO MECHANICAL COMPONENTS.

(1) Obey the precautions.

(2) The item numbers shown in the DPL are the same as the item numbers on the exploded view illustration(s). To find a part number, find the part on the illustration and note the item number. Find the item number in the parts list and read the correct part number. Item numbers refer to the same figure until a different figure is specified.

(3) Before disassembly, use TESTING AND FAULT ISOLATION to examine the condition of the unit or to find the malfunction. Do this to prevent disassembly that is not necessary.

(4) If applicable, as an aid for assembly, tag the items that are disconnected to show where the connections were made.

(5) Include data for special conditions of a connection such as the polarity and the position of the items. Refer to REPAIR.

(6) If applicable, identify the tie points for the wire assembly to prevent damage to the wire insulation during assembly.

(7) Do not disassemble riveted parts. Refer to REPAIR, to determine whether part(s) can be replaced.

B. **Disassembly of the Electric Tail Logo Floodlight** (Subtask 33-42-30-000-002-A01)

(1) Loosen four stud fasteners (10, IPL Figure 1) and swing lens assembly (-5) away from housing assembly (50).

(2) Remove screw (30), stopnut (35) and one end of lanyard assembly (25) from lens retainer (45).

(3) Loosen six quick-release studs (95) and the different housing assembly (50) from housing subassembly (-90).

(4) Remove two lamps (75) as follows:

(a) Loosen four captive screws (65) and remove reflector assembly (-60) from support assembly (-80).

(b) Pull two lamps (75) outward to remove from support assembly (-80).

(5) Remove six screws (85) and the different support assembly (-80) from housing subassembly (-90).

(6) Remove six locknuts (115), washers (120) and ring terminals from terminal board (125).

(7) Remove two locknuts (130), washers (135) and terminal board (125) from housing (185).

(8) Remove screw (142), locknut (140), washer (145) and one end of lanyard assembly (25) from housing (185).

(9) If required, remove transformer assembly (150) as follows:

(a) Cut and remove Ty-Rap from electrical wires as required.

(b) Remove two screws (155) and transformer assembly (150) from housing (185) to length of electrical wires.

(10) If required, remove connector (160) as follows:

(a) Use a sharp knife to remove sealant from back of connector (160). Remove excess sealant. Refer to CLEANING, for details.

(b) Remove nut (part of connector (160)) and connector (160) from housing (185) to length of electrical wires.

(11) If required, remove two nuts (180), two lockwashers (175), four washers (170), and screw (165) from housing (185).

C. Job Close-up (Subtask 33-42-30-000-003-A01)

(1) Remove all tools, equipment, used parts, and materials from the work area.

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CLEANING

1. **Planning Data** (TASK 33-42-30-99C-804-A01)

   A. **Reason for the Job** (Subtask 33-42-30-99C-008-A01)

      (1) Use these procedures to remove dust, dirt, and unwanted oil and grease. Be careful not to cause damage to the parts when you do these procedures.

   B. **Job Setup Data** (Subtask 33-42-30-99C-009-A01)

      (1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials unless specified differently. The user must find equivalent alternatives.

      (2) Refer to Table 4001 for the special tools, fixtures, and equipment in this section.

      (3) CAGE codes and manufacturers' addresses are available at https://cage.dla.mil.

Table 4001. Special Tools, Fixtures, and Equipment

Number	Description	Source
	air supply with an air-ionizing gun attachment or air-ionizing nozzle for compressed air lines (20 PSI (138 kPa) maximum)	commercially available
	soft-bristle brush	commercially available
	stiff-bristle brush	commercially available

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(4) Refer to Table 4002 for the consumable materials in this section.

Table 4002. Consumables

Number	Description	Source
A-A-59323	cleaning cloth (MIL-C-85043, Type I)	commercially available
ANSI B74.18	aluminum oxide abrasive cloth (600-grit)	commercially available
Armakleen M-HP II	aqueous cleaner (MIL-C-29602, Type I)	CAGE: 30530
P-C-458	crocus cloth (600 grade)	commercially available

(5) The list that follows identifies Honeywell publications that are related to this section:

- ATA No. 20-00-03, (Pub. No. A09-1100-004), Standard Repair Procedures for Honeywell Avionics Equipment Instruction Manual.

2. **Procedure** (TASK 33-42-30-100-801-A01)

A. **Job Setup** (Subtask 33-42-30-100-001-A01)

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

CAUTION: DO NOT DROP OR HIT THE ELECTRIC TAIL LOGO FLOODLIGHT DURING THESE PROCEDURES. THE ELECTRIC TAIL LOGO FLOODLIGHT CONTAINS AN ASSEMBLY THAT CAN BE DAMAGED FROM INCORRECT USE.

CAUTION: DO THESE PROCEDURES IN A CLEAN ENVIRONMENT TO PREVENT DAMAGE TO MECHANICAL COMPONENTS.

CAUTION: BEFORE YOU USE ISOPROPANOL, DO A TEST TO MAKE SURE THAT IT DOES NOT CAUSE DAMAGE TO THE PAINTED SURFACES.

CAUTION: DO NOT LET THE ISOPROPANOL TOUCH THE CONNECTOR BODY. IT CAN CAUSE DAMAGE TO THE PARTS. USE ISOPROPANOL CAREFULLY WHEN YOU CLEAN FLUX FROM THE SOLDER CONNECTIONS.

(1) Obey the precautions.

(2) Do the procedures in a clean location.

(3) When you use pressurized air to clean assemblies and parts, do not use more air pressure than is necessary.

(4) After you clean the assemblies and parts, supply protection from moisture, dust, and other contamination until you do a visual check and assemble the component.

(5) Refer to ATA No. 20-00-03, (Pub. No. A09-1100-004), Standard Repair Procedures for Honeywell Avionics Equipment Instruction Manual, for more cleaning procedures. Use the standard repair procedures and approved local shop procedures.

B. **External Parts** (Subtask 33-42-30-100-002-A01)

WARNING: LIMIT AIR PRESSURE TO 30 POUNDS PER SQUARE INCH (207 KILOPASCAL). FAILURE TO OBEY CAN CAUSE INJURY OR DEATH TO PERSONNEL.

(1) Remove dirt and dust with air supply with an air-ionizing gun attachment or air-ionizing nozzle for compressed air lines or a soft-bristle brush.

(2) Remove oil and grease that has collected on the electric tail logo floodlight. Use a clean A-A-59323 cleaning cloth that is moist with Armakleen M-HP II aqueous cleaner.

(3) Remove unwanted material on painted surfaces that show index marks, numerals, or letters. Use an A-A-59323 cleaning cloth that is moist with a weak detergent.

(4) To clean an area in a recess, use a stiff-bristle brush that is moist with a weak detergent.

C. Electrical Parts (Subtask 33-42-30-100-003-A01)

(1) Remove dirt and dust around the connector pins with air supply with an air-ionizing gun attachment or air-ionizing nozzle for compressed air lines.

(2) Remove dirt and dust on the electrical parts with a soft-bristle brush or cotton swab that is moist with Armakleen M-HP II aqueous cleaner.

(3) Clean electrical parts with an A-A-59323 cleaning cloth dipped in Armakleen M-HP II aqueous cleaner to remove dirt, dust, and unwanted material.

WARNING: THIS HALOGEN CYCLE LAMP IS PRESSURIZED AND MAY SHATTER. DO NOT OPERATE IN EXCESS OF RATED VOLTAGE. PROTECT LAMP AGAINST ABRASIONS AND SCRATCHES. REMOVE GREASE OR FINGERPRINTS WITH A GREASE-FREE SOLVENT. WEAR PROTECTIVE EYEGLASSES AND CLOTHING WHEN HANDLING LAMP. TURN POWER OFF WHEN INSTALLING LAMP AND LET COOL BEFORE REMOVING LAMP. DISPOSE OF LAMP WITH CARE.

(4) Except for lamps (75, IPL Figure 1), wipe electrical parts with an A-A-59323 cleaning cloth dipped in Armakleen M-HP II aqueous cleaner to remove dirt, dust and foreign material.

(5) Wipe lens (20) and lamps (75) with a dry, clean A-A-59323 cleaning cloth to remove dirt or dust.

D. Metal Mechanical Parts (Subtask 33-42-30-100-004-A01)

CAUTION: WHEN YOU REMOVE CORROSION, MOVE THE ABRASIVE CLOTH PARALLEL TO THE AXIS OF THE PART. IF YOU MOVE THE ABRASIVE CLOTH ACROSS THE AXIS, YOU CAN CAUSE DAMAGE TO THE FINISH.

CAUTION: DO NOT USE CROCUS CLOTH ON ALUMINUM PARTS. CLOTH CONTAINS IRON OXIDE, WHICH CAUSES RAPID OXIDATION OF ALUMINUM.

CAUTION: DO NOT CHANGE THE SURFACE FINISH OR THE SHAPE OF THE PART. DO NOT REPAIR THE PART MORE THAN THE WEAR LIMITS. FAILURE TO OBEY CAN CAUSE FAILURE OF THE PART.

(1) Remove a thin layer of surface corrosion with correct abrasive cloth. Use ANSI B74.18 aluminum oxide abrasive cloth on aluminum parts. Use P-C-458 crocus cloth on metal parts.

(2) Clean metal parts in Armakleen M-HP II aqueous cleaner. Use a soft-bristle brush to remove ground-in deposits.

WARNING: LIMIT AIR PRESSURE TO 30 POUNDS PER SQUARE INCH (207 KILOPASCAL). FAILURE TO OBEY CAN CAUSE INJURY OR DEATH TO PERSONNEL.

(3) Dry the part with compressed air or clean with an A-A-59323 cleaning cloth and dry the parts in the air.

E. Job Close-up (Subtask 33-42-30-100-005-A01)

(1) Remove all tools, equipment, used parts, and materials from the work area.

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INSPECTION/CHECK

1. **Planning Data** (TASK 33-42-30-99C-805-A01)

   A. **Reason for the Job** (Subtask 33-42-30-99C-010-A01)

      (1) Use these procedures to find damage or worn parts and parts that show signs of near failure.

   B. **Job Setup Data** (Subtask 33-42-30-99C-011-A01)

      (1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials unless specified differently. The user must find equivalent alternatives.

      (2) Refer to Table 5001 for the special tools, fixtures, and equipment in this section.

      (3) CAGE codes and manufacturers' addresses are available at https://cage.dla.mil.

Table 5001. Special Tools, Fixtures, and Equipment

Number	Description	Source
Not applicable	Not applicable	Not applicable

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(4) Refer to Table 5002 for the consumable materials in this section.

Table 5002. Consumables

Number	Description	Source
Not applicable	Not applicable	Not applicable

(5) The list that follows identifies Honeywell publications that are related to this section:

- Not applicable.

2. **Procedure** (TASK 33-42-30-210-801-A01)

A. **Job Setup** (Subtask 33-42-30-210-001-A01)

WARNING: **BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.**

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

CAUTION: DO NOT DROP OR HIT THE ELECTRIC TAIL LOGO FLOODLIGHT DURING THESE PROCEDURES. THE ELECTRIC TAIL LOGO FLOODLIGHT CONTAINS AN ASSEMBLY THAT CAN BE DAMAGED FROM INCORRECT USE.

CAUTION: DO THESE PROCEDURES IN A CLEAN ENVIRONMENT TO PREVENT DAMAGE TO MECHANICAL COMPONENTS.

CAUTION: BEFORE YOU USE ISOPROPANOL, DO A TEST TO MAKE SURE THAT IT DOES NOT CAUSE DAMAGE TO THE PAINTED SURFACES.

CAUTION: DO NOT LET THE ISOPROPANOL TOUCH THE CONNECTOR BODY. IT CAN CAUSE DAMAGE TO THE PARTS. USE ISOPROPANOL CAREFULLY WHEN YOU CLEAN FLUX FROM THE SOLDER CONNECTIONS.

(1) Obey the precautions.

(2) Replace all damaged or worn parts. This prevents possible failures of the equipment.

(3) Clean the parts before performing any check. Refer to CLEANING, for details.

(4) Use 2X magnification and an amplified light to check the parts.

B. **General Inspection/Check Procedure of the Electric Tail Logo Floodlight** (Subtask 33-42-30-210-002-A01)

(1) Examine parts for nicks, gouges, scratches or small burrs. If any are deeper than 0.03 in. (0.8 mm), replace part. Refer to REPAIR to repair minor damage.

(2) Examine parts for corrosion. If deeper than 0.03 in. (0.8 mm) or more than 20 percent of surface is damaged, replace part. Refer to REPAIR to repair minor damage.

(3) Examine painted parts for scratches, peeling, flaking or chipping. Refer to REPAIR to repair minor damage.

(4) Visually inspect threaded parts for distortion or stripping. If damaged, replace part.

(5) Examine threaded inserts for stripping and tight fit. If damaged or loose, replace parts.

(6) Examine electrical parts for cracks, distortion, bent pins or signs of burned connections. If damaged, replace parts.

(7) Examine electrical wires for cracks, breaks or deterioration of insulation. If damaged, replace.

(8) Examine lens (20, IPL Figure 1) for cracks and discoloration. If damaged, repair or replace.

(9) Examine transformer assembly (150) for evidence of overheating. If damaged, replace.

(10) Examine housing (185) for dents, cracks, or breaks. If damaged, replace.

C. Job Close-up (Subtask 33-42-30-210-003-A01)

(1) Remove all tools, equipment, used parts, and materials from the work area.

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REPAIR

1. **Planning Data** (TASK 33-42-30-99C-806-A01)

   A. Reason for the Job (Subtask 33-42-30-99C-012-A01)

   (1) Use these procedures for the LRU to replace defective parts and replace or repair defective subassemblies.

   (2) Do only those procedures of DISASSEMBLY that are necessary to make repairs. When new parts are necessary, refer to the ILLUSTRATED PARTS LIST for the correct part numbers and quantities.

   B. Job Setup Data (Subtask 33-42-30-99C-013-A01)

   (1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials unless specified differently. The user must find equivalent alternatives.

   (2) Refer to Table 6001 for the special tools, fixtures, and equipment in this section.

   (3) CAGE codes and manufacturers' addresses are available at https://cage.dla.mil.

Table 6001. Special Tools, Fixtures, and Equipment

Number	Description	Source
46121	crimping tool	commercially available
59239-4	crimping tool	commercially available
59250	crimping tool	commercially available
	arbor press	commercially available
	very fine file	commercially available

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(4) Refer to Table 6002 for the consumable materials in this section.

Table 6002. Consumables

Number	Description	Source
	chemical film (alodine)	commercially available
	masking tape (0.75 in. (19.1 mm) wide)	commercially available
	white cotton gloves	commercially available

Table 6002. Consumables (Cont)

Number	Description	Source
A-A-59323	cleaning cloth (MIL-C-85043, Type I)	commercially available
MS25036-101	ring terminal(s) (SAE AS25036, used on Wire No. 1, 2, 5, and 6)	commercially available
MS25036-145	ring terminal(s) (SAE AS25036, used on Wire No. 3 and 4)	commercially available
P-C-451	aluminum oxide abrasive cloth (400 grit)	commercially available
P-C-458	crocus cloth (600 grade)	commercially available
PLT1M-C76	Ty-Rap (TL160)	CAGE: 06383
RTV-157	adhesive (AD029)	CAGE: 09214

(5) The list that follows identifies Honeywell publications that are related to this section:

- ATA No. 20-00-03, (Pub. No. A09-1100-004), Standard Repair Procedures for Honeywell Avionics Equipment Instruction Manual.

2. **Procedure** (TASK 33-42-30-300-801-A01)

A. **Job Setup** (Subtask 33-42-30-300-001-A01)

WARNING: **BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.**

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

CAUTION: DO NOT DROP OR HIT THE ELECTRIC TAIL LOGO FLOODLIGHT DURING THESE PROCEDURES. THE ELECTRIC TAIL LOGO FLOODLIGHT CONTAINS AN ASSEMBLY THAT CAN BE DAMAGED FROM INCORRECT USE.

CAUTION: DO THESE PROCEDURES IN A CLEAN ENVIRONMENT TO PREVENT DAMAGE TO MECHANICAL COMPONENTS.

CAUTION: DO NOT USE CROCUS CLOTH ON ALUMINUM PARTS. CLOTH CONTAINS IRON OXIDE, WHICH CAUSES RAPID OXIDATION OF ALUMINUM.

(1) Obey the precautions.

(2) Use same color and type to replace electrical wires. Strip insulation 0.25 in. (6.35 mm). Use solder to tin end, then attach to another component.

(3) Use aluminum oxide abrasive cloth on aluminum parts. Use crocus cloth on steel parts.

B. References for Repair (Subtask 33-42-30-300-002-A01)

(1) These references show where to find repair data that is located in other sections of this manual and in other manuals. The data in other sections of this manual is necessary for repair of the electric tail logo floodlight and its primary subassemblies. The data in other manuals gives procedures that are not included in this manual.

(2) Refer to SCHEMATIC AND WIRING DIAGRAMS to for reference drawings for the electric tail logo floodlight and its primary subassemblies. The drawings give data about:

- Bus wires
- Consumable materials
- Component layout
- Component termination
- Cut runs
- Schematic diagrams.

(3) Refer to SCHEMATIC AND WIRING DIAGRAMS for wire list tables and for harness, cable, and lead assemblies. The tables give data about wire:

- Terminations
- Type
- Size (AWG)
- Color.

(4) Refer to FITS AND CLEARANCES for:

- Component clearance
- Maximum component height
- Maximum lead length
- Torque limits.

(5) Refer to ILLUSTRATED PARTS LIST for:

- Figure and item numbers
- Subassembly and component locations
- Correct part numbers
- Correct quantities.

(6) Refer to ATA No. 20-00-03, (Pub. No. A09-1100-004), Standard Repair Procedures for Honeywell Avionics Equipment Instruction Manual. Standard repair procedures are shop repairs that use the same procedures on many types of assemblies. Use the standard repair procedures and approved local shop procedures.

C. General Repair Instructions (Subtask 33-42-30-300-003-A01)

CAUTION: DO NOT CHANGE SURFACE FINISH OR PART SHAPE OR EXCEED WEAR LIMITS. FAILURE TO COMPLY CAN RESULT IN FAILURE OF THE PART.

CAUTION: DO NOT USE CROCUS CLOTH ON ALUMINUM PARTS. CLOTH CONTAINS IRON OXIDE, WHICH CAUSES RAPID OXIDATION OF ALUMINUM.

(1) Remove minor surface corrosion with correct abrasive cloth.

(2) Use P-C-451 aluminum oxide abrasive cloth on aluminum parts. Use P-C-458 crocus cloth on steel parts.

(3) Remove nicks, gouges, scratches or small burrs as follows:

(a) Remove any raised material with a very fine file.

(b) Blend damaged area into adjacent surfaces.

(c) Polish areas with correct abrasive cloth.

D. Surface Treatment Procedure (Subtask 33-42-30-300-004-A01)

WARNING: CHEMICAL FILM IS FLAMMABLE AND TOXIC TO EYES, SKIN AND RESPIRATORY TRACT. SKIN AND EYE PROTECTION REQUIRED. AVOID REPEATED OR PROLONGED CONTACT. USE ONLY IN WELL-VENTILATED AREAS. KEEP AWAY FROM OPEN FLAMES OR OTHER SOURCES OF IGNITION.

(1) This procedure must be used for touch-up of scratches and minor surface defects. If complete surface treatment is required, replace part.

(a) Clean part. Refer to CLEANING, for details.

(b) Cover areas not to be treated with masking tape.

(c) Apply a light layer of chemical film to the repair area. Clean with water, then remove excess with a A-A-59323 cleaning cloth. Let air dry.

(d) Remove masking tape.

E. Repair of Lens Assembly, PN 31-8574-1 (Subtask 33-42-30-300-005-A01)

WARNING: ADHESIVE IS HIGHLY FLAMMABLE. AVOID INHALATION OF VAPORS AND CONTACT WITH SKIN. OBSERVE FIRE PRECAUTIONS.

(1) Remove damaged lens (20, IPL Figure 1) from lens retainer (45). Discard lens (20).

(2) Remove old adhesive residue from lens retainer (45). Refer to CLEANING, for details.

(3) Apply RTV-157 adhesive to recessed lip of new lens (20).

(4) Position new lens (20) on lens retainer (45). Use a clean A-A-59323 cleaning cloth to remove excess RTV-157 adhesive. Let air dry for four hours.

(5) Replace damaged gasket (40) as follows:

(a) Remove damaged gasket (40) from lens retainer (45). Discard gasket (40).

(b) Remove old adhesive residue from lens retainer (45). Refer to CLEANING, for details.

(c) Apply RTV-157 adhesive to mating surface of new gasket (40).

(d) Position new gasket (40) on lens retainer (45). Use a clean A-A-59323 cleaning cloth to remove excess RTV-157 adhesive. Let air dry for four hours.

(6) Replace damaged stud fastener (10) as follows:

(a) Remove retainer ring (15) and stud fastener (10) from retainer (45). Discard retainer ring (15) and stud fastener (10).

(b) Insert new stud fastener (10) through retainer (45) and attach with retainer ring (15).

(c) Repeat Steps (1) and (2) for other stud fasteners (10).

F. Repair of Housing Assembly, PN 31-8615-1 (Subtask 33-42-30-300-006-A01)

(1) Replace damaged receptacle (51, IPL Figure 1) as follows:

(a) Drill out two rivets (52). Discard rivets.

(b) Remove receptacle (51) and discard.

(c) Attach new receptacle (51) to housing assembly (50) with two new rivets (52).

(2) Replace damaged spring (53).

(a) Drill out two rivets (54). Discard rivets.

(b) Remove spring (53) and discard.

(c) Attach new spring (53) to housing assembly (50) with two new rivets (54).

G. Repair of Support Assembly, PN 31-8914-1 (Subtask 33-42-30-300-007-A01)

WARNING: WEAR PROTECTIVE CLOTHING AND EYE PROTECTION WHEN HANDLING HALOGEN LAMP. LAMP IS PRESSURIZED AND CAN SHATTER.

CAUTION: DO NOT TOUCH LAMP WITH BARE HANDS. IT CAN DAMAGE THE LENS.

(1) Replace damaged lampholder (86, IPL Figure 1) as follows:

(a) Using white cotton gloves, remove lamp (75).

(b) Remove screw (65) from reflector (70A) and remove reflector (70A).

(c) Remove screw (88H) from support assembly (-80).

(d) Remove lampholder (86) from support assembly (-80) and discard.

(e) Attach new lampholder (86) with screw (88H).

(f) Attach reflector (70) to lampholder (86) with screw (65).

(g) Using white cotton gloves, install lamp (75).

(h) Using 59239-4 crimping tool, install two terminals (88L) onto wires (part of lampholder (86)).

H. Repair of Housing Subassembly, PN 31-8572-1 (Subtask 33-42-30-300-008-A01)

(1) Replace damaged quick-release studs (95, IPL Figure 1) as follows:

(a) Remove retaining grommet (100) and quick-release stud (95) from housing (185). Discard quick-release stud (95) and retaining grommet (100).

(b) Insert new quick-release stud (95) through housing (185) and attach with retaining grommet (100).

(c) Repeat Steps (1) and (2) for other quick-release studs (95).

(2) Replace damaged retaining ring (105) as follows:

NOTE: If the retaining ring (105) or any of the six inserts (112) are damaged, the retaining ring (105) and all six inserts (112) must be replaced.

(a) Drill out four rivets (110). Discard rivets.

(b) Remove retaining ring (105) from housing (185).

(c) Use the retaining ring (105) removed in Step (b) as a reference for the location of the new inserts. Use an arbor press to install six new inserts (112) on the new retaining ring (105). Discard the retaining ring (105) removed in Step (b).

(d) Position new retaining ring (105) on housing (185) and align holes.

(e) Insert four new rivets (110) into holes and attach in accordance with MIL-R-47196.

I. Repair of Electrical Wiring (Subtask 33-42-30-300-009-A01)

(1) Refer to Table 6003 and Figure 6001.

(2) Replace damaged MS25036-101 ring terminal(s) as follows:

(a) Cut wire at base of MS25036-101 ring terminal(s). Discard terminal(s).

(b) Strip 0.25 in. (6.4 mm) insulation from end of electrical wire(s).

(c) Use a 59250 crimping tool to install new MS25036-101 ring terminal(s) on electrical wire(s).

(3) Replace damaged MS25036-145 ring terminal(s) as follows:

(a) Cut wire at base of MS25036-145 ring terminal(s). Discard terminal(s).

(b) Strip 0.25 in. (6.4 mm) insulation from end of electrical wire(s).

(c) Use a 46121 crimping tool to install new MS25036-145 ring terminal(s) on electrical wire(s).

(4) Replace damaged tubing as follows:

(a) Cut PLT1M-C76 Ty-Rap as required and remove tubing from electrical wires. Discard tubing.

(b) Cut new tubing to length, slide tubing over electrical wires and attach with new PLT1M-C76 Ty-Rap.

Table 6003. Wire and Tubing List

Wire Number	Wire Color	Wire Length	Tubing Length
1	Brown	3.50 in. (88.9 mm)	2.75 in. (69.9 mm)
2	Brown	3.50 in. (88.9 mm)	
3	White	2.50 in. (63.5 mm)	1.00 in. (25.4 mm)
4	White	2.50 in. (63.5 mm)	
5	Black	5.50 in. (139.7 mm)	4.75 in. (120.7 mm)
6	Black	5.50 in. (139.7 mm)	
7	Red	5.75 in. (146.1 mm)	4.25 in. (108.0 mm)
8	Black	5.75 in. (146.1 mm)	
9	White	3.00 in. (76.2 mm)	NA

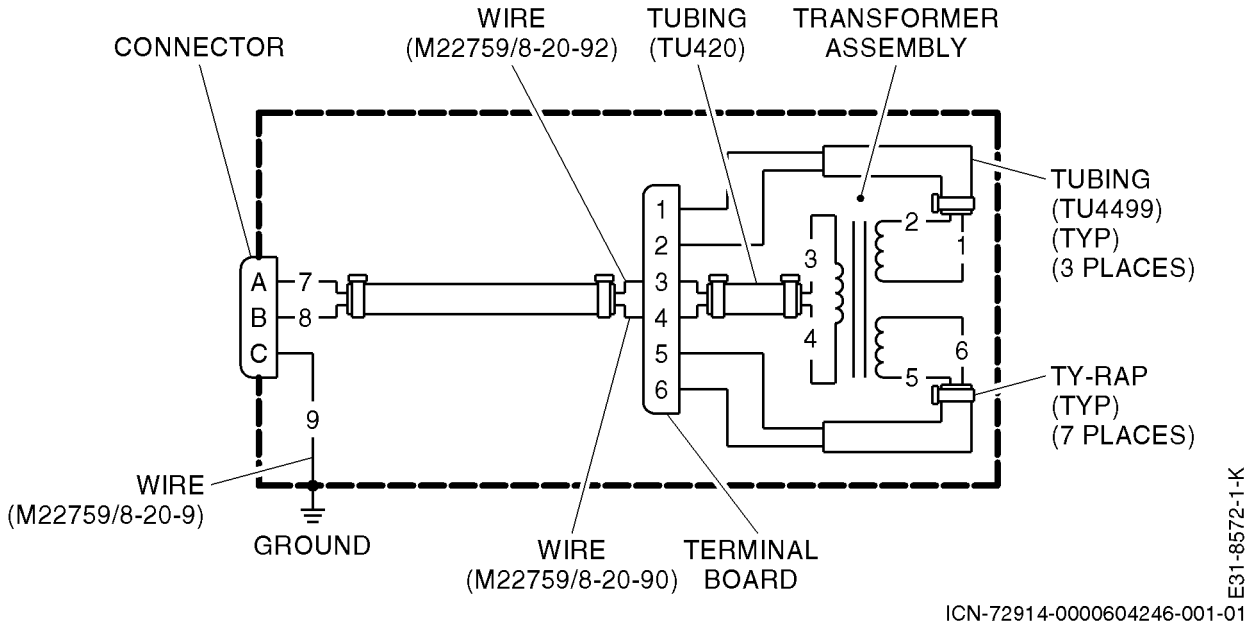

Figure 6001. Wire and Tubing Locations

J. Job Close-up (Subtask 33-42-30-300-010-A01)

(1) Clean parts. Refer to CLEANING, for details.

(2) Wrap parts in a clean A-A-59323 cleaning cloth to avoid contamination until ready for assembly.

(3) Remove all tools, equipment, used parts, and materials from the work area.

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ASSEMBLY

1. **Planning Data** (TASK 33-42-30-99C-807-A01)

A. **Reason for the Job** (Subtask 33-42-30-99C-014-A01)

(1) Use these procedures to assemble the LRU. Do only those procedures that are applicable to the disassembly done.

B. **Job Setup Data** (Subtask 33-42-30-99C-015-A01)

(1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials unless specified differently. The user must find equivalent alternatives.

(2) Refer to Table 7001 for the special tools, fixtures, and equipment in this section.

(3) CAGE codes and manufacturers' addresses are available at https://cage.dla.mil.

Table 7001. Special Tools, Fixtures, and Equipment

Number	Description	Source
Not applicable	Not applicable	Not applicable

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(4) Refer to Table 7002 for the consumable materials in this section.

Table 7002. Consumables

Number	Description	Source
Not applicable	Not applicable	Not applicable

(5) The list that follows identifies Honeywell publications that are related to this section:

- Not applicable.

2. **Procedure** (TASK 33-42-30-400-801-A01)

A. **Job Setup** (Subtask 33-42-30-400-001-A01)

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

CAUTION: DO NOT DROP OR HIT THE ELECTRIC TAIL LOGO FLOODLIGHT DURING THESE PROCEDURES. THE ELECTRIC TAIL LOGO FLOODLIGHT CONTAINS AN ASSEMBLY THAT CAN BE DAMAGED FROM INCORRECT USE.

CAUTION: DO THESE PROCEDURES IN A CLEAN ENVIRONMENT TO PREVENT DAMAGE TO MECHANICAL COMPONENTS.

CAUTION: BEFORE YOU USE ISOPROPANOL, DO A TEST TO MAKE SURE THAT IT DOES NOT CAUSE DAMAGE TO THE PAINTED SURFACES.

CAUTION: DO NOT LET THE ISOPROPANOL TOUCH THE CONNECTOR BODY. IT CAN CAUSE DAMAGE TO THE PARTS. USE ISOPROPANOL CAREFULLY WHEN YOU CLEAN FLUX FROM THE SOLDER CONNECTIONS.

(1) Obey the precautions.

(2) The item numbers shown in the DPL are the same as the item numbers on the exploded view illustration(s). To find a part number, find the part on the illustration and note the item number. Find the item number in the parts list and read the correct part number. Item numbers refer to the same figure until a different figure is specified.

(3) If applicable, refer to the data written during disassembly for the location of the tie points and where to connect the components and wires.

B. **Assembly of the Electric Tail Logo Floodlight, PN 30-2581-3** (Subtask 33-42-30-400-002-A01)

WARNING: SEALANT IS HIGHLY FLAMMABLE. AVOID INHALATION OF VAPORS AND CONTACT WITH SKIN. OBSERVE FIRE PRECAUTIONS.

WARNING: THIS HALOGEN CYCLE LAMP IS PRESSURIZED AND MAY SHATTER. DO NOT OPERATE IN EXCESS OF RATED VOLTAGE. PROTECT LAMP AGAINST ABRASIONS AND SCRATCHES. REMOVE GREASE OR FINGERPRINTS WITH A GREASE-FREE SOLVENT. WEAR PROTECTIVE EYEGLASSES AND CLOTHING WHEN HANDLING LAMP. TURN POWER OFF WHEN INSTALLING LAMP AND LET COOL BEFORE REMOVING LAMP. DISPOSE OF LAMP WITH CARE.

(1) If removed, install screw (165), two lock washers (175), four washers (170) and two nuts (180) on housing (185).

(2) Install connector (160) as follows:

(a) Position connector (160) in housing (185) and attach with nut (part of connector (160)).

(3) Position transformer assembly (150) on housing (185) and attach with two screws (155).

(4) Position one end of lanyard assembly (25) in housing (185) and attachwith screw (142), washer (145), and locknut (140).

(5) Position terminal board (125) on housing (185) and attach with two locknuts (130) and washers (135).

NOTE: Refer to Figure 1001 in TESTING AND FAULT ISOLATION, for the correct electrical connections.

(6) Position six ring terminals on terminal board (125) and attach with six locknuts (115) and washers (120).

(7) Install Ty-Rap as required to attach wires.

(8) Install two lamps (75) in support assembly (-80).

(9) Position two reflector assemblies (-60) on support assembly (-80) and attach with four captive screws (65). Refer to Figure 7001.

NOTE: Reflectors cutout orientation: Reflectors cutout reflectors orientation must align with ID plate and connector orientation.

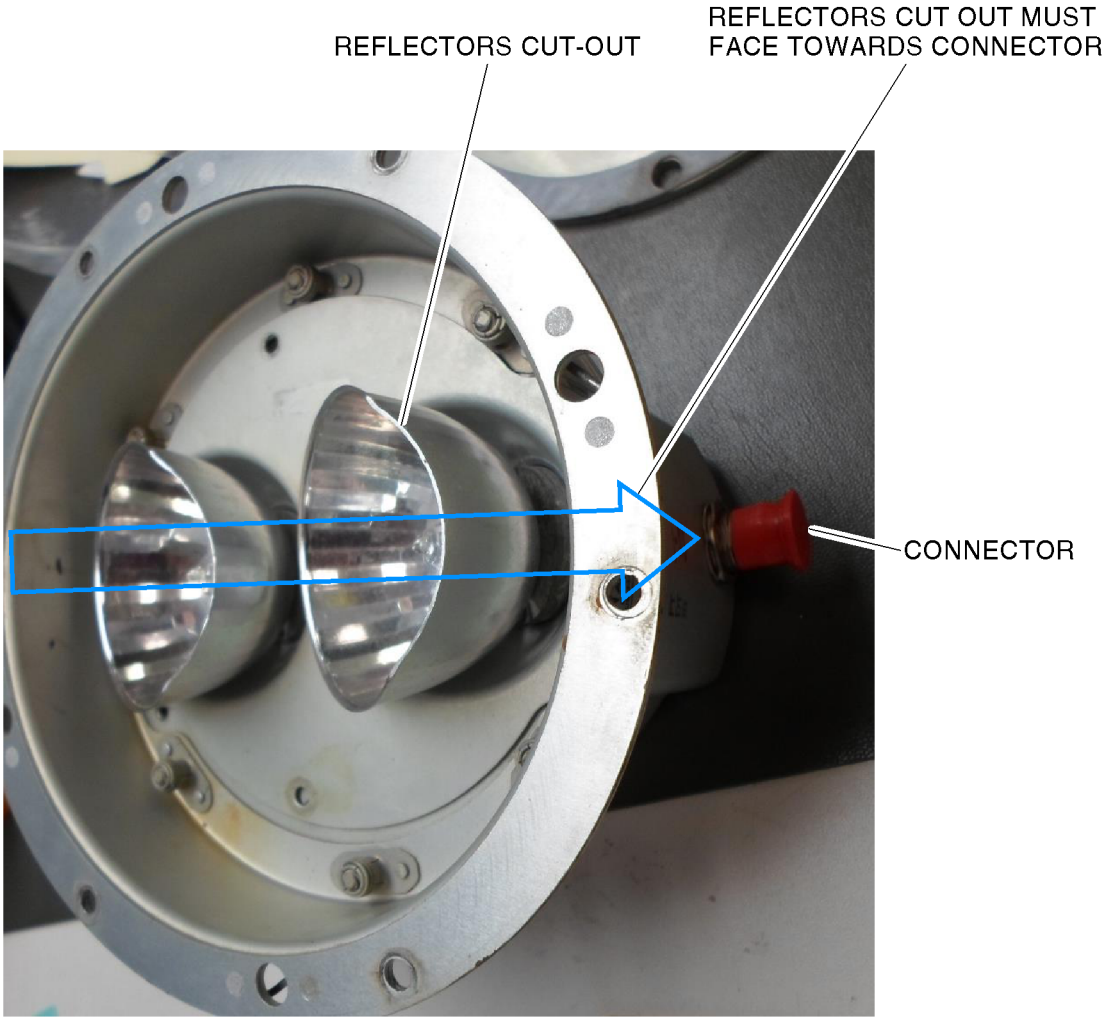
(10) Install support assembly (-80) on housing subassembly (-90) with six pan head screws (85).

(11) Position housing assembly (50) on light subassembly (-55) and attach with six quick-release studs (95).

(12) Position one end of lanyard assembly (25) on lens retainer (45) and attach with screw (30) and stop nut (35).

(13) Position lens assembly (-5) on housing assembly (50) and attach with four stud fasteners (10).

(14) Test floodlight. Refer to TESTING AND FAULT ISOLATION, for details.



NOTE:
Reflectors cutout orientation: Reflectors cutout reflectors orientation must align with ID plate and connector orientation.

ICN-72914-0000754482-001-01

Figure 7001. Reflector Orientation

C. **Job Close-up** (Subtask 33-42-30-400-003-A01)

(1) Remove all tools, equipment, used parts, and materials from the work area.

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FITS AND CLEARANCES

1. **Planning Data** (TASK 33-42-30-99C-808-A01)

A. **Reason for the Job** (Subtask 33-42-30-99C-016-A01)

(1) This section gives the fits and clearances used when the LRU was made.

(2) This section gives the torque data required for repair and assembly of the LRU.

B. **Job Setup Data** (Subtask 33-42-30-99C-017-A01)

(1) The list that follows identifies Honeywell publications that are related to this section:

- ATA No. 20-00-03 (Pub. No. A09-1100-004), Standard Repair Procedures for Honeywell Avionics Equipment Instruction Manual.

2. **Fits and Clearances** (TASK 33-42-30-220-801-A01)

A. **Fits and Clearances of the Electric Tail Logo Floodlight** (Subtask 33-42-30-220-001-A01)

(1) Not applicable.

B. **Torque Values** (Subtask 33-42-30-220-002-A01)

(1) Tighten nuts, bolts, screws, and tube fittings to standard torque values unless specified differently in this manual. Refer to ATA No. 20-00-03 (Pub. No. A09-1100-004), Standard Repair Procedures for Honeywell Avionics Equipment Instruction Manual, for standard torque values.

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SPECIAL TOOLS, FIXTURES, EQUIPMENT, AND CONSUMABLES

1. **Planning Data** (TASK 33-42-30-99C-809-A01)

   A. **Reason for the Job** (Subtask 33-42-30-99C-018-A01)

      (1) This section gives the special tools, fixtures, equipment, and consumable materials that are necessary for LRU maintenance.

   B. **Job Setup Data** (Subtask 33-42-30-940-001-A01)

      (1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials unless specified differently. The user must find equivalent alternatives.

      (2) Refer to Table 9001 for the special tools, fixtures, and equipment in this section.

      (3) CAGE codes and manufacturers' addresses are available at https://cage.dla.mil.

Table 9001. Special Tools, Fixtures, and Equipment

Number	Description	Source
46121	crimping tool	commercially available
59239-4	crimping tool	commercially available
59250	crimping tool	commercially available
	air supply with an air-ionizing gun attachment or air-ionizing nozzle for compressed air lines (20 PSI (138 kPa) maximum)	commercially available
	arbor press	commercially available
	sharp knife	commercially available
	soft-bristle brush	commercially available
	stiff-bristle brush	commercially available
	variable regulated power supply (0-115 VAC, 400 Hz, 2 amp minimum)	commercially available
	very fine file	commercially available
Model 87	digital multimeter	CAGE: 89536

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(4) Refer to Table 9002 for the consumable materials in this section.

Table 9002. Consumable Materials

Number	Description	Source
	chemical film (alodine)	commercially available
	desiccant (MIL-D-3464)	commercially available
	masking tape (0.75 in. (19.1 mm) wide)	commercially available
	plastic bag	commercially available
	white cotton gloves	commercially available
	wrapping material (MIL-B-121, Grade A)	commercially available
A-A-59135	dunnage (sheet material)	commercially available
A-A-59136	cushioning (foam planks)	commercially available
A-A-59323	cleaning cloth (MIL-C-85043, Type I)	commercially available
ANSI B74.18	aluminum oxide abrasive cloth (600-grit)	commercially available
Armakleen M-HP II	aqueous cleaner (MIL-C-29602, Type I)	CAGE: 30530
ASTM-D1974	tape	commercially available
ASTM-D5118	shipping box	commercially available
MS25036-101	ring terminal(s) (SAE AS25036, used on Wire No. 1, 2, 5, and 6)	commercially available
MS25036-145	ring terminal(s) (SAE AS25036, used on Wire No. 3 and 4)	commercially available
P-C-451	aluminum oxide abrasive cloth (400 grit)	commercially available
P-C-458	crocus cloth (600 grade)	commercially available
PLT1M-C76	Ty-Rap (TL160)	CAGE: 06383
RTV-157	adhesive (AD029)	CAGE: 09214

(5) The list that follows identifies Honeywell publications that are related to this section:

- Not applicable.

SPECIAL PROCEDURES

1. Not Applicable

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REMOVAL

1. Not Applicable

Blank Page

INSTALLATION

1. Not Applicable

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SERVICING

1. Not Applicable

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STORAGE (INCLUDING TRANSPORTATION)

1. **Planning Data** (TASK 33-42-30-99C-810-A01)

   A. Reason for the Job (Subtask 33-42-30-99C-019-A01)

   (1) Use these procedures to prepare the LRU for storage or transportation. The function of these procedures is to make sure that the LRU has protection from dust, moisture, and other contamination.

   B. Job Setup Data (Subtask 33-42-30-99C-020-A01)

   (1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials unless specified differently. The user must find equivalent alternatives.

   (2) Refer to Table 15001 for the special tools, fixtures, and equipment in this section.

   (3) CAGE codes and manufacturers' addresses are available at https://cage.dla.mil.

Table 15001. Special Tools, Fixtures, and Equipment

Number	Description	Source
Not applicable	Not applicable	Not applicable

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(4) Refer to Table 15002 for the consumable materials in this section.

Table 15002. Consumables

Number	Description	Source
	desiccant (MIL-D-3464)	commercially available
	plastic bag	commercially available
	wrapping material (MIL-B-121, Grade A)	commercially available
A-A-59135	dunnage (sheet material)	commercially available
A-A-59136	cushioning (foam planks)	commercially available
A-A-59323	cleaning cloth (MIL-C-85043, Type I)	commercially available
ASTM-D1974	tape	commercially available
ASTM-D5118	shipping box	commercially available

(5) The list that follows identifies Honeywell publications that are related to this section:

- Not applicable.

2. **Procedure** (TASK 33-42-30-550-801-A01)

A. **Job Setup** (Subtask 33-42-30-550-001-A01)

WARNING: **BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.**

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO HONEYWELL SPECIFIED MATERIALS. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

CAUTION: DO NOT DROP OR HIT THE ELECTRIC TAIL LOGO FLOODLIGHT DURING THESE PROCEDURES. THE ELECTRIC TAIL LOGO FLOODLIGHT CONTAINS AN ASSEMBLY THAT CAN BE DAMAGED FROM INCORRECT USE.

CAUTION: DO THESE PROCEDURES IN A CLEAN ENVIRONMENT TO PREVENT DAMAGE TO MECHANICAL COMPONENTS.

(1) Obey the precautions.

B. **Preservation** (Subtask 33-42-30-550-002-A01)

(1) Clean the floodlight with an A-A-59323 cleaning cloth to remove dirt, dust, and unwanted material.

(2) Do the preservation procedure for the electric tail logo floodlight. Refer to MIL-STD-2073-1C, Method 41.

(3) Wrap the floodlight in wrapping material and put in a plastic bag.

C. **Packing** (Subtask 33-42-30-550-003-A01)

(1) Wipe the floodlight with a clean A-A-59323 cleaning cloth to remove dirt, dust and foreign material.

(2) Install dust cap on connector (160).

(3) Put A-A-59135 dunnage, A-A-59136 cushioning, desiccant, and the electric tail logo floodlight in a ASTM-D5118 shipping box, then seal with ASTM-D1974 tape.

D. **Storage** (Subtask 33-42-30-550-004-A01)

(1) Mark outside of ASTM-D5118 shipping box in accordance with MIL-STD-129. Also include overhaul date and location.

E. **Transportation** (Subtask 33-42-30-550-005-A01)

(1) When equipment is sent to Honeywell for warranty repair, use the approved ATA container, or equivalent.

F. **Job Close-up** (Subtask 33-42-30-550-006-A01)

(1) Remove all tools, equipment, used parts, and materials from the work area.

REWORK (SERVICE BULLETIN ACCOMPLISHMENT PROCEDURES)

1. Not Applicable

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ILLUSTRATED PARTS LIST

1. **Description** (TASK 33-42-30-99C-811-A01)

A. **General** (Subtask 33-42-30-99C-021-A01)

(1) This section gives the parts that are used to make the LRU. It also supplies the necessary data to get replacement parts for REPAIR and TESTING AND FAULT ISOLATION.

(2) The DPL part of the ILLUSTRATED PARTS LIST gives a breakdown, in disassembly sequence, of assemblies and detail parts of the unit.

(3) The illustrations show where you can find each part and are an important aid in DISASSEMBLY and ASSEMBLY.

(4) The item numbers shown in the DPL are the same as the item numbers on the exploded view illustration(s). To find a part number, find the part on the illustration and record the item number. Go to the DPL to find the item number and related part number.

B. **Job Setup Data** (Subtask 33-42-30-99C-022-A01)

(1) The list that follows identifies references that are related to this section:

- CAGE codes and manufacturers' addresses are available at https://cage.dla.mil.

2. **Contents of the IPL** (TASK 33-42-30-99C-812-A01)

A. **Vendor Code List** (Subtask 33-42-30-99C-023-A01)

(1) The vendor code list shows the vendor CAGE code, name, and address in numerical sequence for all vendors shown in the IPL. Refer to the Vendor Code List.

(2) The vendor CAGE code is given in the nomenclature column of the DPL to identify the vendor.

B. **Equipment Designator Index** (Subtask 33-42-30-99C-024-A01)

(1) Not applicable.

C. **Numerical Index** (Subtask 33-42-30-99C-025-A01)

(1) The NI is an alphanumeric list of all the part numbers shown in the part number column of the DPL.

(2) Also included in the index are the Honeywell part numbers that are equivalent to the manufacturer part number. Optional manufacturer part numbers are not included in the index.

(3) The figure item column gives all of the locations of a part. If a part number is in more than one figure item location, the part number is shown only one time in the part number column.

(4) The total required column shows the total number of parts that are used at each figure item location.

(5) The airline stock number column has space for customers to use.

D. **Detailed Parts List** (Subtask 33-42-30-99C-026-A01)

NOTE: Refer to Figure 10001.

(1) An item number is given to each part in the DPL and on the related illustration. The item numbers show the general disassembly sequence.

(2) To find a part number in the DPL.

(a) If the part number is known, refer to the NI to find the figure and item numbers in the DPL.

(b) If the part number is not known, turn to the illustration; locate the part, and record the item number. The part number is shown opposite the item number in the DPL.

(c) If the equipment designator is known, refer to the EDI to find the figure and item numbers in the DPL.

(3) Revision codes for added, changed, or deleted data.

(a) Revision bars (I) in the left margin adjacent to an entry shows changed or added data to the part in the DPL.

(4) Figure item column.

(a) A part not shown on the illustration is identified in the DPL as non-illustrated by a dash (-) before the item number.

(b) When two or more items that are visually alike are listed in sequence, only the first item is illustrated. The illustration, however, is applicable to both items.

(c) When the detailed parts of an assembly or installation are illustrated, they can be identified by a bracket. The bracket identifies the next higher assembly or installation. If brackets are not used, the detail parts are illustrated, but the next higher assembly or installation is not.

(d) The parts that make up a select-from range group (i.e. calibration resistor assortments) have a non-illustrated item number or a different figure.

(5) Part number column.

(a) A part number that is prefixed usually indicates a type of part or method of procurement. Examples of these prefixes are AN, MS, and NAS. These standard part numbers may be suffixed by numbers only or numbers and letters. Suffix numbers usually indicate configuration or design difference. Suffix letters usually indicate material, color, or finish differences.

(b) All procurable components manufactured by Honeywell have a part number. The part number is stamped, etched, or cast on the part at time of manufacture when size, space, or shape is available. More manufacturing symbol(s), letter(s), or number(s) can be shown with the part number to identify a manufacturing process, a design change, or for a proprietary repair. Do not use this data to order a part. Use only the item part number and nomenclature as shown in the DPL.

(c) The letter "S" prefix of a part number designates a Honeywell standard part number. These standard part numbers have suffix letters and numbers.

(d) Honeywell commercial standard numbers are used in the parts lists to identify off-the-shelf items procured from another manufacturer. A commercial standard number can be a 10 or 11 digit number.

(e) Nonprocurable part numbers are usually easy to identify and are primarily used for information purposes. The part numbers NONPROCXXX, ORDERNHA,

GAREFXXX, TUCREFXXX, AIREFXXX, and TORREFXXX are not procurable and should not be ordered.

1 The part number NONPROCXXX is primarily used to sub-divide components into a logical, easy to use, subgroup. The subgroup is not procurable, but is used to identify a group of procurable components.

2 The part number ORDERNHA (Order Next Higher Assembly) is primarily used to identify nonprocurable details of an assembly.

3 The part number GAREFXXX, TUCREFXXX, AIREFXXX, and TORREFXXX is used when a procurable part number exceeds 15 digits. When the part number GAREFXXX, TUCREFXXX, AIREFXXX, and TORREFXXX appears in the PART NUMBER column, refer to the nomenclature for the actual part number of the item desired.

(6) Airline stock number column.

(a) The airline stock number column has space for customers to use.

(7) Nomenclature column.

(a) The indenture code shows the relationship of each item to its NHA.

1 Each item goes in the nomenclature column one indenture (one dot) to the right of the assembly to which it belongs.

2 The items at the same indenture are all components of a single assembly or subassembly. Refer to Figure 10002 for an example of the indenture code system.

(b) Wherever possible, abbreviations will agree with the ASME Y14.38 specification. The non-standard abbreviations that spell words are not used.

(c) The vendor code data are as follows:

1 The vendors with a code number have the letter V before the number. This code identifies where to get that item.

2 No vendor code is shown in the nomenclature column of the DPL if the item is a U.S. standard part or Honeywell is the vendor.

3 The vendors with no code number (NCN) are identified by (VNCN__).

4 The vendors with no code number are shown in the nomenclature column of the DPL with the vendor’s full name and address.

(d) A Honeywell specification drawing number will be shown if applicable.

(e) Refer to this list of possible explanation terms. These terms may be abbreviated.

1 OPTIONAL shows that the part is an optional alternative to other parts in the same item number variant group.

2 ALTERNATE shows that the part is an alternative to other parts in the same item number variant group.

3 SUPERSEDED BY shows that the part is replaced by the part number or item number shown and is not interchangeable.

4 SUPERSEDES shows that the part replaces the part number or item number shown and is not interchangeable.

5 REPLACED BY shows that the part is replaced by the part number or item number shown and is interchangeable. Part can be used until the supply is gone.

6 REPLACES shows that the part replaces the part number or item number shown and is interchangeable.

7 PRE SERVICE BULLETIN XXXX shows that the part is used if service bulletin XXXX was not done.

8 POST SERVICE BULLETIN XXXX shows that the part is used if service bulletin XXXX was done.

9 PRE SPARE PARTS BULLETIN XXXX shows that the part is used if spare parts bulletin XXXX was not done.

10 POST SPARE PARTS BULLETIN XXXX shows that the part is used if spare parts bulletin XXXX was done.

11 NONREPAIRABLE shows that the part cannot be repaired.

12 NONPROCURABLE shows that the part or assembled parts cannot be purchased and no part number exists for the assembly. The components of the assembled parts can be ordered unless differently specified.

13 ORDER NEXT HIGHER ASSEMBLY shows that the part number is part of a matched set and cannot be ordered independently. The next higher assembly can be ordered.

14 REFERENCE (GAREF, TUCREF, AIREF, TORREF etc.) shows the procurable part number that exceeds 15 digits in the NOMENCLATURE column as ORDER PN NNNN.

15 ORDER PART NUMBER shows a nonstandard or reference part number.

16 PART ADDED shows the part is added with no comparable component involved in the change. Interchangeability of other parts is not affected by the additions, unless specified.

17 DELETED shows the part is not available for use.

18 SEE FIGURE FOR DETAILS shows the part number details in a different figure.

19 SEE FIGURE FOR NEXT HIGHER ASSEMBLY refers the part number to the next higher assembly.

20 USE WITH (ITEM or PART NUMBER) shows a part is used with a different part.

21 COMPONENT OF (ITEM or PART NUMBER) shows that the part is a component of a different part.

22 MAY BE SUBSTITUTED shows that the part in the NOMENCLATURE column with its vendor code is an equivalent alternative for the part in the PART NUMBER column.

23 REFER TO ATA or PUBLICATION NUMBER identifies the assemblies that have their own Component Maintenance Manuals. These entries are also shown in the INTRODUCTION of this manual under References.

24 Control Source Drawing (CSD) shows the Honeywell part number for the part in the PART NUMBER column and is fully interchangeable.

25 Honeywell Control Source Drawing (HCSD) shows the Honeywell part number for the part in the PART NUMBER column and is fully interchangeable.

26 HAZARDOUS MATERIAL identifies parts that can have dangerous effects.

27 ESDS identifies parts that are electrostatic sensitive.

28 MOISTURE SENSITIVE identifies parts that are moisture sensitive.

(f) If applicable, refer to REPAIR for description of wire, sleeving, and lacing given in this DPL.

(8) The effectivity code column.

(a) The effectivity code identifies the different configurations of the top assembly in each IPL figure.

(b) If this column is empty, the part is used in all configurations of the top assembly for that IPL figure.

(c) If this column has a letter code in it, the part is only used in the configuration of the top assembly that has the same letter code.

(d) If this column has more than one letter code, the part is used in each top assembly with the same letter codes.

(e) If a comma separates the column entry (A, C), the other codes do not apply. For example, a component coded "A, C" is applicable for Codes A and C only and not applicable for Code B.

(f) If a dash separates the column entry (A-C), the other codes do apply. For example, a component coded "A-C" is applicable for Codes A, B, and C.

(9) The units per assembly column.

(a) The units per assembly column show the quantity of parts necessary in the assembly of one next higher assembly. The letters AR in this column show "as required" items and refer to bulk items or adjustable quantity items, such as shims or spacers. The letters RF are used to show an item that is shown in another area with a quantity.

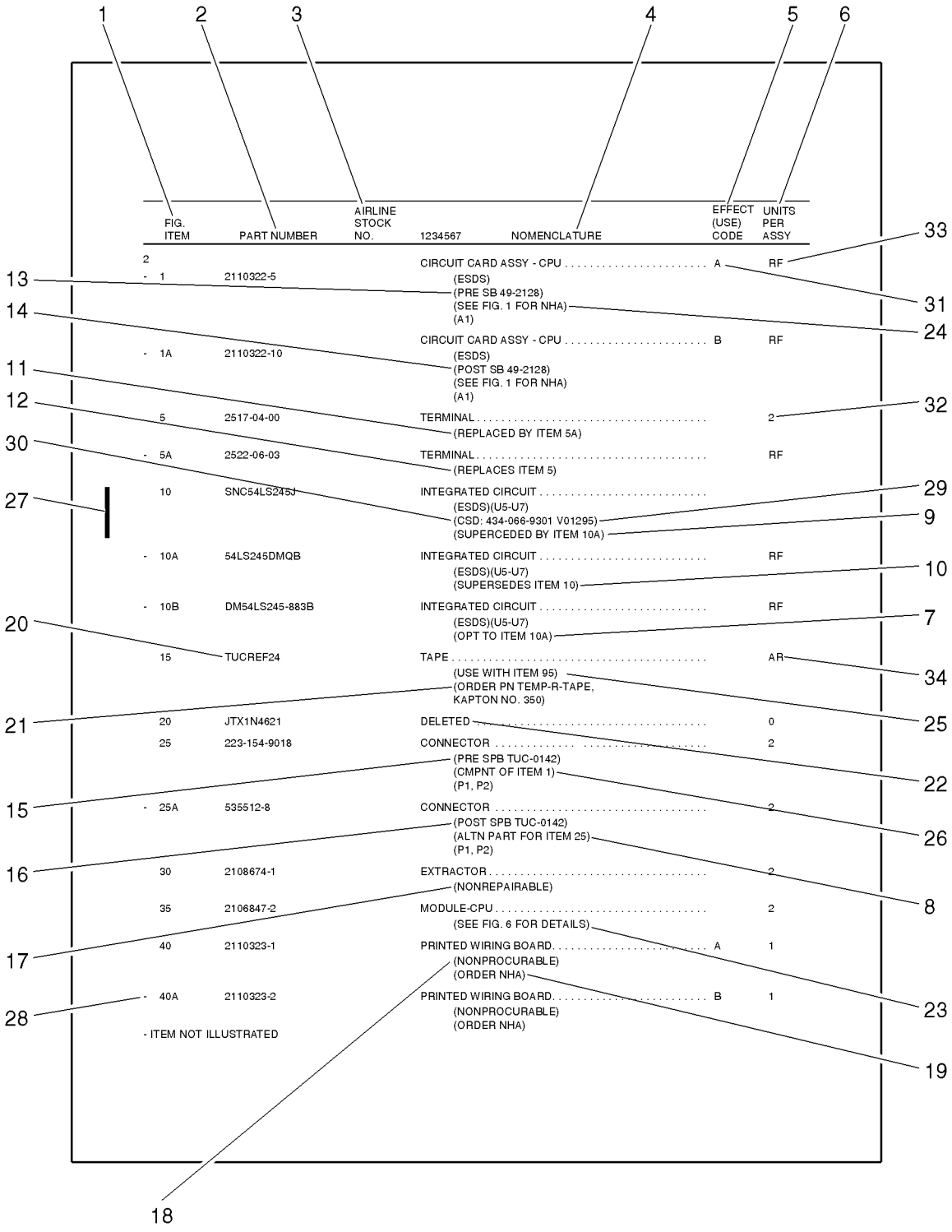

Figure 10001. DPL Example

Key to Figure 10001

1. FIGURE/ITEM column
2. PART NUMBER column
3. AIRLINE STOCK NUMBER column
4. NOMENCLATURE column
5. EFFECTIVITY (USE) CODE column
6. UNITS PER ASSEMBLY column
7. OPTIONAL example
8. ALTERNATE example
9. SUPERSEDED BY example
10. SUPERSEDES example
11. REPLACED BY example
12. REPLACES example
13. PRE SERVICE BULLETIN example
14. POST SERVICE BULLETIN example
15. PRE SPARE PARTS BULLETIN example
16. POST SPARE PARTS BULLETIN example
17. NONREPAIRABLE example
18. NONPROCURABLE example
19. ORDER NEXT HIGHER ASSEMBLY example
20. REFERENCE example
21. ORDER PART NUMBER example
22. DELETED example
23. SEE FIGURE FOR DETAILS example
24. SEE FIGURE FOR NEXT HIGHER ASSEMBLY example
25. USE WITH (ITEM or PART NUMBER) example
26. COMPONENT OF (ITEM or PART NUMBER) example
27. Changed or added data indicator example
28. Non-illustrated indicator example
29. Vendor code example
30. Control Specification or Drawing Number for the related part in the Part Number column example
31. Effectivity (A) example
32. Quantity example
33. RF indicates item referenced elsewhere
34. As required example

1 2 3 4 5 6 7
Assembly or installation descriptive title
• Detail parts
• Assembly
• Attaching parts for assembly
• • Detail parts for assembly
• • Subassembly
• • Attaching parts for subassembly
• • • Detail parts for subassembly
• • • Sub-subassembly
• • • Attaching parts for sub-subassembly
• • • • Detail parts for sub-subassembly

ICN-HNYWL-0000233104-001-99

Figure 10002. Nomenclature Indentures

3. Vendor Code List

NOTE: The vendor codes and part numbers that are shown in the DPL must not be construed as an authorization of the vendor, pursuant to the FAA regulations, to ship directly to the user. Neither must it be construed as a certification by Honeywell that parts shipped by vendors directly to users will conform to the type design or that such parts are airworthy or safe for installation.

Code	Vendor
V00779	TYCO ELECTRONICS CORP 2800 FULLING MILL RD BLDG 38 MIDDLETOWN, PA 17057-3142
V09922	SOURIAU USA INC 1750 COMMERCE WAY PASO ROBLES, CA 93446-3620
V25088	SIEMENS CORP 186 WOOD AVE S ISELIN, NJ 08830-2704 FORMERLY:FORMERLY IN NEW YORK NY
V56987	CAPTIVE FASTENERS CORP 115 BAUER DR OAKLAND, NJ 07436-3191 FORMERLY:FORMERLY IN MIDLAND PARK NJ
V72794	SOUTHCO HONEOYE FALLS AEROSPACE FASTENERS DIVISION 250 EAST ST, HONEOYE FALLS, NY 14472-1250
V72914	HONEYWELL AEROSPACE-URBANA 550 STATE ROUTE 55 URBANA OH, 43078 USA
V80205	NATIONAL AEROSPACE STANDARDS COMMITTEE AEROSPACE INDUSTRIES
V83330	DIALIGHT CORP 1501 STATE RTE 34 FARMINGDALE, NJ 07727-3932
V88044	AERONAUTICAL STANDARDS GROUP DEPT OF NAVY AND AIR FORCE
V96906	MILITARY STANDARDS PROMULGATED BY MILITARY DEPARTMENTS UNDER AUTHORITY OF DEFENSE STANDARDIZATION MANUAL 4120 3-M

4. Detailed Parts List

Equipment Designator Index

EQUIPMENT DESIGNATOR	FIG. ITEM	GEOGRAPHIC LOCATION	EQUIPMENT DESIGNATOR	FIG. ITEM	GEOGRAPHIC LOCATION

NOT APPLICABLE

Numerical Index

PART NUMBER	AIRLINE STOCK NO.	FIG. ITEM	TTL REQ.
AN960-10L		1 170	4
C0500	SEE 8525-17N28B3APN		
CFE0-632		1 -112A	6
CFE0632	(DELETED)	1 112	0
FA1359	SEE UH3T25		
FA1359	SEE 5783-20-25C2C		
FA1621	SEE FJ4-45		
FA516	SEE 1219-4200Z3CT		
FA575	SEE GH3		
FA589	SEE 5718A3ACNC		
FA601	SEE SR4		
FJ4-45		1 10	4
GH3		1 100	6
HLX64621		1 75	2
LH564	SEE QS11		
LP64621	SEE HLX64621		
MS122076		1 -87	4
MS16562-209		1 -88D	2
MS20426A2-5		1 -110A	4
MS20426A3-5		1 54	8
MS20426B2-4		1 110	4
MS20470B3-4		1 52	12
MS21042-06		1 115	6
		130	2
		140	1
MS21042L06		1 35	1
MS24693C24		1 30	1
MS24693C25		1 -30A	1
MS24693C7		1 88H	4
MS35207-261		1 155	2
MS35207-265		1 165	1
MS35338-43		1 175	2
MS35650-302		1 180	2
MS51957-15		1 65	2
MS51957-26		1 85	6
MS51957-28		1 142	1
NAS620-6		1 120	6
		135	2
		145	1
NS625	SEE CFE0-632		
QS11		1 -87D	4
SR4		1 15	4
TE228	SEE 152681		
TE228	SEE 320634		
TE6743	SEE 699JJ2102-06		
UH3T25		1 95	6
1219-4200Z3CT		1 53	4
152681		1 88L	4

Numerical Index

PART NUMBER	AIRLINE STOCK NO.	FIG. ITEM	TTL REQ.
25-1845-23D		1 20	1
30-2581-3		1 -1	RF
31-3048-7		1 125	1
31-5206-19		1 25	1
31-8557-1		1 -70A	1
31-8572-1		1 -90	1
31-8572-5		1 -90A	1
31-8573-1		1 -55	1
31-8573-5		1 -55A	1
31-8574-1		1 -5	1
31-8581-15		1 86	2
31-8584-1		1 45	1
31-8585-1		1 40	1
31-8611-9		1 -185A	1
31-8614-1		1 -60	2
31-8615-1		1 50	1
31-8910-1		1 88P	1
31-8914-1		1 -80	1
31-8914L1		1 88	1
31-8928-1		1 105	1
320634		1 -88M	4
55-2506-1		1 150	1
5718A3ACNC		1 51	6
5783-20-25C2C		1 -95A	6
60-4442-7		1 -65A	2
699JJ2102-06		1 -125A	1
8525-17N28B3APN		1 -160A	1
8525-17N8B3APNH	(DELETED)	1 160	0

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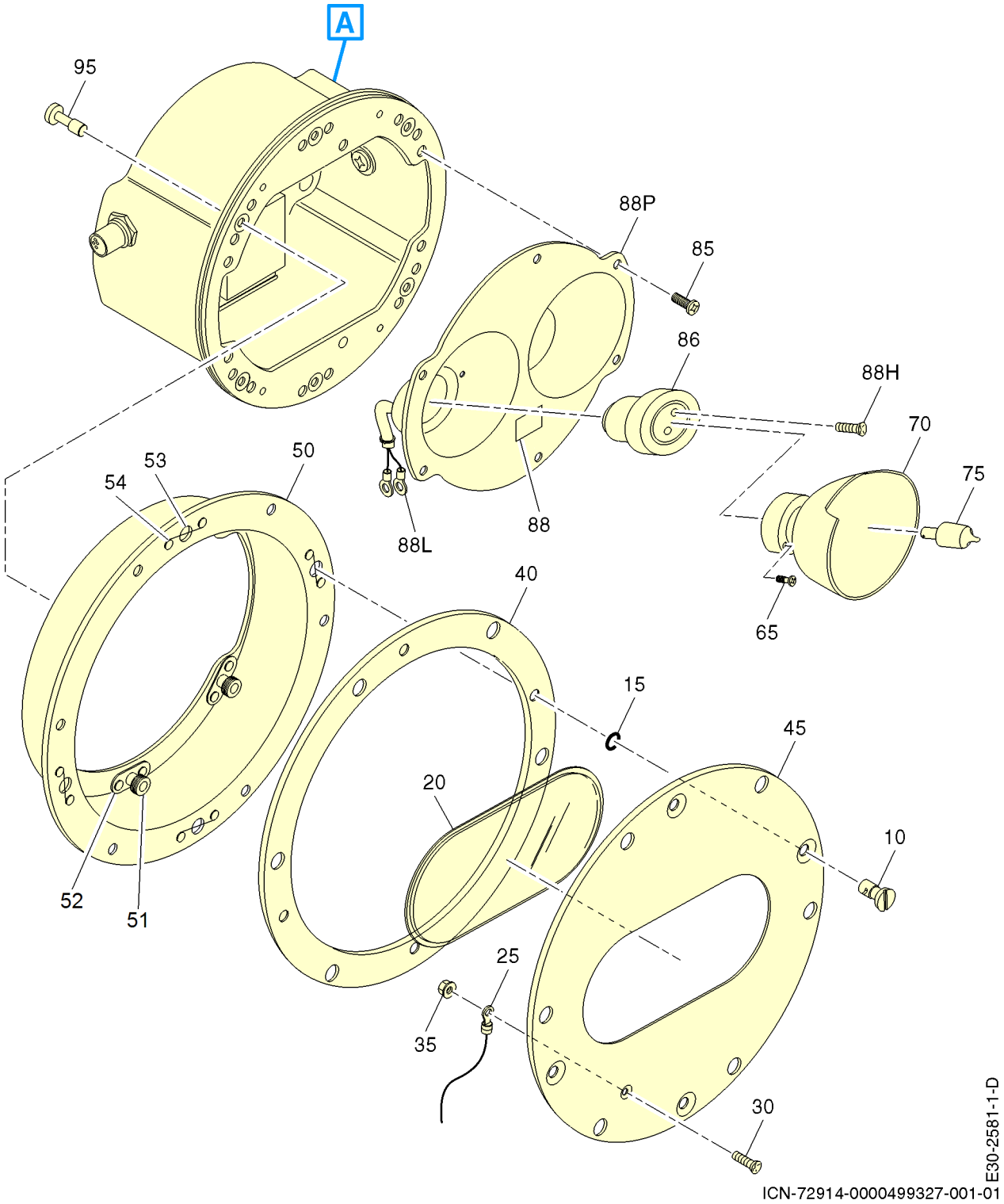
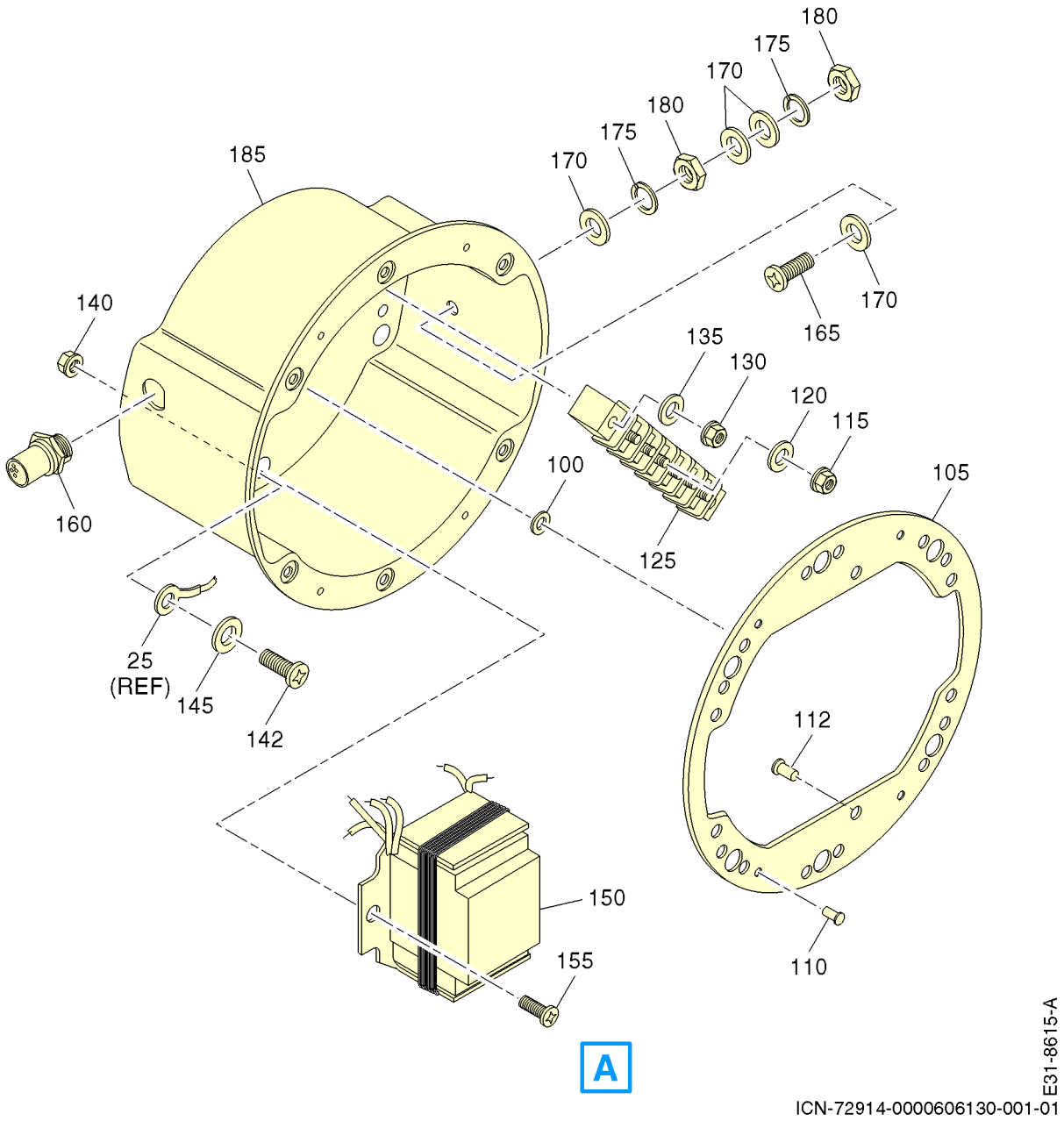


IPL Figure 1. (Sheet 1 of 2) Electric Tail Logo Floodlight



IPL Figure 1. (Sheet 2 of 2) Electric Tail Logo Floodlight

FIG. ITEM	PART NUMBER	AIRLINE STOCK NO.	1234567 NOMENCLATURE	EFFECT (USE) CODE	UNITS PER ASSY
1					
- 1	30-2581-3		FLOODLIGHT..... ELECTRIC TAIL LOGO		RF
- 5	31-8574-1		.LENS ASSEMBLY.....		1
10	FJ4-45		..FASTENER..... STUD (CSD: FA1621 V72914)		4
			(ATTACHING PARTS)		
15	SR4		..RING..... RETAINER (CSD: FA601 V72914)		4
			---*---		
20	25-1845-23D		..LENS.....		1
25	31-5206-19		..LANYARD ASSEMBLY.....		1
			(ATTACHING PARTS)		
30	MS24693C24		..SCREW..... COUNTERSUNK HEAD (V96906) (REPLACED BY ITEM: 30A)		1
- 30A	MS24693C25		..SCREW..... COUNTERSUNK HEAD (V96906) (REPLACES ITEM: 30)		1
35	MS21042L06		..NUT..... STOP (V96906)		1
			---*---		
40	31-8585-1		..GASKET.....		1
45	31-8584-1		..RETAINER..... LENS		1
50	31-8615-1		.HOUSING ASSEMBLY.....		1
51	5718A3ACNC		..RECEPTACLE..... (CSD: FA589 V72914) (ORDER PN 5718-A3-ACNC)		6
52	MS20470B3-4		..RIVET..... (V96906)		12

- ITEM NOT ILLUSTRATED

FIG. ITEM	PART NUMBER	AIRLINE STOCK NO.	1234567	NOMENCLATURE	EFFECT (USE) CODE	UNITS PER ASSY
1						
53	1219-4200Z3CT			..SPRING..... (CSD: FA516 V72914) (ORDER PN 1219-4200-Z3CT)		4
54	MS20426A3-5			..RIVET..... (V96906)		8
- 55	31-8573-1			.LIGHT..... SUBASSEMBLY (REPLACED BY ITEM: 55A)		1
- 55A	31-8573-5			.LIGHT..... SUBASSEMBLY (REPLACES ITEM: 55)		1
- 60	31-8614-1			..REFLECTOR ASSEMBLY.....		2
65	MS51957-15			...SCREW..... CAPTIVE (V96906) (REPLACED BY ITEM: 65A)		2
- 65A	60-4442-7			...SCREW..... CAPTIVE (REPLACES ITEM: 65)		2
70	ORDERNHA			...REFLECTOR..... (REPLACED BY ITEM: 70A)		1
- 70A	31-8557-1			...REFLECTOR..... (REPLACES ITEM: 70)		1
75	HLX64621			..LAMP..... (12 V, 100 W) (V25088) (CSD: LP64621 V72914)		2
- 80	31-8914-1			..SUPPORT ASSEMBLY.....		1
				(ATTACHING PARTS)		
85	MS51957-26			..SCREW..... PAN HEAD (V96906)		6
				---*---		
86	31-8581-15			...LAMPHOLDER.....		2
- 87	MS122076			....INSERT..... (V96906)		4

- ITEM NOT ILLUSTRATED

FIG. ITEM	PART NUMBER	AIRLINE STOCK NO.	1234567	NOMENCLATURE	EFFECT (USE) CODE	UNITS PER ASSY
1						
- 87D	QS11			...LAMPHOLDER..... (CSD: LH564 V72914) (ORDER PN QS-11)		4
88	31-8914L1			...LABEL.....		1
- 88D	MS16562-209			...PIN..... (V96906)		2
88H	MS24693C7			...SCREW..... (V96906)		4
88L	152681			...TERMINAL..... (V00779) (CSD: TE228 V72914) (SUPERSEDED BY ITEM: 88M)		4
- 88M	320634			...TERMINAL..... (V00779) (CSD: TE228 V72914) (SUPERSEDES ITEM: 88L)		4
88P	31-8910-1			...SUPPORT.....		1
- 90	31-8572-1			..HOUSING SUBASSEMBLY..... (REPLACED BY ITEM: 90A)		1
- 90A	31-8572-5			..HOUSING SUBASSEMBLY..... (REPLACES ITEM: 90)		1
95	UH3T25			...STUD..... QUICK RELEASE (CSD: FA1359 V72914) (SUPERSEDED BY ITEM: 95A)		6
- 95A	5783-20-25C2C			...STUD..... QUICK RELEASE (V72794) (CSD: FA1359 V72914) (ORDER PN 5783-20-25-C2C) (SUPERSEDES ITEM: 95)		6
				(ATTACHING PARTS)		
100	GH3			...GROMMET..... RETAINING (CSD: FA575 V72914)		6

---*---

- ITEM NOT ILLUSTRATED

FIG. ITEM	PART NUMBER	AIRLINE STOCK NO.	1234567	NOMENCLATURE	EFFECT (USE) CODE	UNITS PER ASSY
1						
105	31-8928-1			...RING RETAINING (ORDER NHA ITEM 90A)		1
				(ATTACHING PARTS)		
110	MS20426B2-4			...RIVET (V96906) (REPLACED BY ITEM: 110A)		4
- 110A	MS20426A2-5			...RIVET (V96906) (REPLACES ITEM: 110)		4
112	CFE0632			...DELETED		0
- 112A	CFE0-632			...INSERT (V56987) (CSD: NS625 V72914) (ORDER PN CFEO-632)		6
				---*---		
115	MS21042-06			...NUT LOCK (V96906)		6
120	NAS620-6			...WASHER (V80205)		6
125	31-3048-7			...BOARD TERMINAL (REPLACED BY ITEM: 125A)		1
- 125A	699JJ2102-06			...BLOCK TERMINAL (V83330) (CSD: TE6743 V72914) (ORDER PN 699-JJ-2102-06) (REPLACES ITEM: 125)		1
				(ATTACHING PARTS)		
130	MS21042-06			...NUT LOCK (V96906)		2
135	NAS620-6			...WASHER (V80205)		2
				---*---		

- ITEM NOT ILLUSTRATED

FIG. ITEM	PART NUMBER	AIRLINE STOCK NO.	1234567 NOMENCLATURE	EFFECT (USE) CODE	UNITS PER ASSY
1					
140	MS21042-06		...NUT LOCK (V96906)		1
142	MS51957-28		...SCREW (V96906)		1
145	NAS620-6		...WASHER (V80205)		1
150	55-2506-1		...TRANSFORMER ASSEMBLY (ATTACHING PARTS)		1
155	MS35207-261		...SCREW PAN HEAD (V96906)		2
			---*---		
160	8525-17N8B3APNH		...DELETED		0
- 160A	8525-17N28B3APN		...CONNECTOR (V09922) (CSD: C0500 V72914) (ORDER PN 8525-17N-8B3-APNH)		1
165	MS35207-265		...SCREW PAN HEAD (V96906)		1
170	AN960-10L		...WASHER (V88044)		4
175	MS35338-43		...WASHER LOCK (V96906)		2
180	MS35650-302		...NUT (V96906)		2
185	ORDERNHA		.HOUSING (REPLACED BY ITEM: 185A)		1
- 185A	31-8611-9		...HOUSING (REPLACES ITEM: 185) (ORDER NHA)		1

- ITEM NOT ILLUSTRATED

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