

# Commercial Airplanes

737
Service Bulletin

# **SPECIAL ATTENTION**

**Number:** 737-28-1303 Original Issue: April 26, 2012 Revision 1: January 22, 2015

ATA System: 2800

SUBJECT: FUEL - General - Left Environmental Control Systems Bay Wire Clamp - Inspection

and Replacement

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ECCN: 9E991

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Number: 737-28-1303
Original Issue: April 26, 2012
Revision Transmittal Sheet

Revision 1: January 22, 2015

ATA System: 2800

SUBJECT: FUEL - General - Left Environmental Control Systems Bay Wire Clamp - Inspection

and Replacement

This revision includes all pages of the service bulletin.

#### COMPLIANCE INFORMATION RELATED TO THIS REVISION

Effects of this Issue on airplanes on which the Original Issue was previously done:

None.

Federal Aviation Administration (FAA) Airworthiness Directive AD 2013-04-11 is related to this service bulletin.

#### REASON FOR REVISION

This revision is sent to add additional interchangeable wire bundle clamp(s) installed on a wire bundle in the left Environmental Control Systems (ECS) bay. In addition, reference to the Federal Aviation Administration (FAA) Airworthiness Directive (AD) AD 2013-04-11 is added to the compliance section. This revision also adds the use of a borescope, for clamp inspection, which could eliminate the need to remove the heat exchanger for Group 1 airplanes.

These sections are changed:

- 1. Summary Background and Paragraph 1.C., Reason, changed information.
- 2. Summary Action and Paragraph 1.D., Description, changed information.
- Summary Compliance and Paragraph 1.E., Compliance, changed the compliance recommendation and added Airworthiness Directive AD 2013-04-11.
- 4. Paragraph 1.F., Approval, added Alternative Method Of Compliance (AMOC) statement.
- 5. Paragraph 1.G., Manpower, changed table.
- 6. Paragraph 1.J., References, changed information.
- 7. Paragraph 1.K., Publications Affected, added table.
- 8. Paragraph 1.L., Interchangeability and Intermixability of Parts, changed information.

- Paragraph 2.C.2., Parts Necessary for Each Airplane, Part name changed and Footnote (c) added to tables.
- 10. Paragraph 3.B., Work Instructions: Step 2 changed to include additional information.
- 11. Paragraph 3.B., Work Instructions: Step 3 changed to include additional wire bundle clamps and additional information.
- 12. Figure 1 and Figure 2 table: changed footnote (a) to include additional wire bundle clamps.
- 13. Figure 3 and Figure 4 table: Step 4 changed to include optional part numbers for additional wire bundle clamps.

Vertical lines are put on the left edge of each page, except in Paragraph 1.A., Effectivity, to show the location of important changes.

Pages with no vertical lines have no important changes.

#### **REVISION HISTORY**

Original Issue:	April 26, 2012
Revision 1:	January 22, 2015



# Commercial Airplanes

# 737 Service Bulletin

# **SPECIAL ATTENTION**

Number: 737-28-1303 Summary

Original Issue: April 26, 2012 Revision 1: January 22, 2015

ATA System: 2800

SUBJECT: FUEL - General - Left Environmental Control Systems Bay Wire Clamp - Inspection

and Replacement

BOEING RECOMMENDS THAT EACH OPERATOR EXAMINE THIS SERVICE BULLETIN IMMEDIATELY.

#### CONCURRENT REQUIREMENTS

None.

#### **BACKGROUND**

This service bulletin gives instructions to inspect and replace incorrect wire bundle clamp(s) installed on a wire bundle in the left Environmental Control Systems (ECS) bay. A fully cushioned clamp should be installed to prevent potential conductor to clamp short circuits. If this service bulletin is not done, conductor to clamp short circuits could produce arcing from a hot short and introduce a potential ignition source in the center wing tank and a subsequent fire or explosion.

During a drawing review, Boeing found that some callouts for the fully cushioned wire bundle clamp(s) were accidentally left out from the production drawings in the left ECS bay. This could lead to the installation of incorrect clamp(s). It was found that an incorrect clamp could be installed at two locations on 737-600 and -700 airplanes and one location on 737-800 and 900ER airplanes. The clamp(s) that should have been installed are fully cushioned and part of the Special Federal Aviation Regulation (SFAR) 88 requirement. The production drawings have now been corrected and airplane line number 3488 and subsequent have the correct clamp(s) installed. Boeing initiated this service bulletin to address this condition.

Accomplishment of this service bulletin replaces incorrect wire bundle clamp(s) installed in the left ECS bay with fully cushioned clamp(s). Installation of fully cushioned clamp(s) will prevent an electrical fault current paths to the center wing tank caused by wiring hot shorts.

Boeing Service Related Problem (SRP) 737NG-SRP-28-0136 is related to this service bulletin.

Boeing Fleet Team Digest (FTD) 737NG FTD 28-11001 is related to this service bulletin.

This table is provided to operators for planning purposes only. Refer to the applicable sections for more information.

Planning Data	Affected	Reference
Spares Affected	No	Paragraph 1.A.2., Spares Affected

Planning Data	Affected	Reference
AD Related	Yes	Paragraph 1.E., Compliance
Weight and Balance Change	No	Paragraph 1.H., Weight and Balance Changes
Electrical Load Changed	No	Paragraph 1.I., Electrical Load Data
Publications Affected	No	Paragraph 1.K., Publications Affected
Airplane Flight Operations Affected (Flight Crew Operations Manual and/or FAA Approved Airplane Flight Manual)	No	Paragraph 1.K., Publications Affected
Kits/Parts Required	No	Paragraph 2.C.1., Kits/Parts
Operator Supplied Material	Yes	Paragraph 2.C.2., Parts and Materials Supplied by the Operator
Special Tooling Required	No	Paragraph 2.F., Special Tooling Necessary to do this Service Bulletin

#### **ACTION**

Get access to the left side ECS bay by opening the ECS bay access door 192CL. Do a Detailed Inspection of the wire clamp(s) installed at specified location(s). If a fully cushioned clamp TA0930034-10, TA0930034-10P, TA0930034-11 or TA0930034-12P clamp has not been installed, remove the clamp, do a detailed inspection for wire damage, repair damage found, and install a TA0930034-10, TA0930034-10P,TA0930034-11 or TA0930034-12P fully cushioned wire clamp. Close left side ECS bay access door 192CL.

This service bulletin inspects additional wire clamps on the same wire bundle as Boeing Service Bulletin 737-28-1312.

#### **EFFECTIVITY**

737-600/-700/-800/-900ER Airplane(s). Refer to Paragraph 1.A.1., Airplanes, for the list of affected airplane(s).

#### COMPLIANCE

Federal Aviation Administration (FAA) Airworthiness Directive AD 2013-04-11 is related to this service bulletin.

Boeing recommends that the inspection and change given in this service bulletin be done within 60 months after the effective date of AD 2013-04-11. The effective date of AD 2013-04-11 is April 11, 2013.

#### **INDUSTRY SUPPORT INFORMATION**

Boeing warranty remedies are available for airplanes in warranty as of June 02, 2011. Please refer to Paragraph 2.B., Industry Support Information.

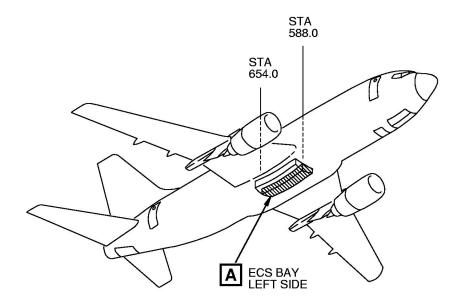
#### **MANPOWER**

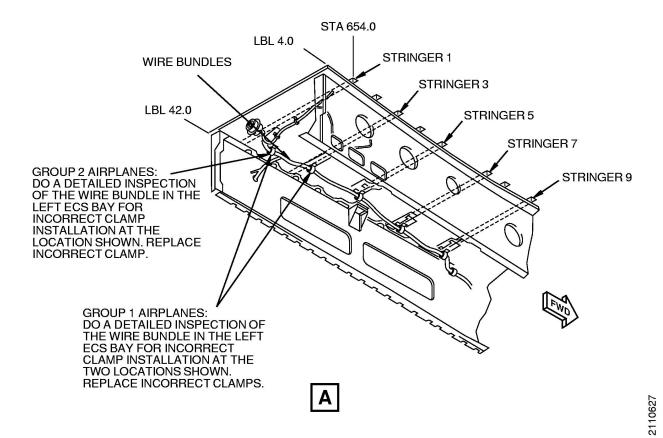
Refer to Paragraph 1.G., Manpower.

#### MATERIAL INFORMATION

Operator Supplied Parts/Materials.

Refer to Paragraph 2.A., Material - Price and Availability.





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# Commercial Airplanes

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and Replacement

BOEING RECOMMENDS THAT EACH OPERATOR EXAMINE THIS SERVICE BULLETIN IMMEDIATELY.

#### 1. PLANNING INFORMATION

# A. Effectivity

#### 1. Airplanes

Refer to Service Bulletin Index D6-19567 Part 3 for Airplane Variable Number, Line Number, and Serial Number data.

This service bulletin is applicable to 737-600/-700/-800/-900ER Airplanes, line numbers 1820-3487 in 2 Groups. The Variable Numbers and Group Information for the applicable airplanes is given below.

GROUP	CONFIGURATION	DESCRIPTION
1	-	737-600/-700 airplanes, line numbers 1820 thru 3487 that could have two incorrect wire bundle clamps installed.
2	-	737-800/-900ER airplanes, line numbers 2007 thru 2040 an 2621 thru 3222 that could have one incorrect wire bundle clamp installed.

# Airplane Models:

737-600, 737-700, 737-800, 737-900ER

Variable Number	Group
YA977 - YA978	1
YB384 - YB392	1
YB575	1
YB578 - YB580	1

YB592 - YB598 YB633 - YB635 YB671 - YB672 YB889 - YB893 YB964 - YB974 YB986 - YB996	1 1 1 1 1 1 2 2 2 2 2
YB671 - YB672 YB889 - YB893 YB964 - YB974 YB986 - YB996	1 1 1 1 2 2
YB889 - YB893 YB964 - YB974 YB986 - YB996	1 1 1 2 2
YB964 - YB974 YB986 - YB996	1 1 2 2
YB986 - YB996	1 2 2
	2
VCOOF	2
YC095	
YC743	2
YD415 - YD416	_
YE374 - YE383	1
YF001 - YF006	2
YF023 - YF039	2
YF046	2
YF052 - YF060	2
YF086	2
YF112 - YF114	2
YF116 - YF117	2
YF121 - YF122	2
YF191 - YF192	2
YF201 - YF241	2
YF401 - YF402	2
YF451 - YF454	2
YF501 - YF570	2
YF701 - YF705	2
YF801	2
YF831 - YF832	2
YF901 - YF902	2
YG094 - YG099	1
YG101 - YG103	1
YG111 - YG114	1
YG116 - YG128	1
YG203 - YG205	1
YG212 - YG214	1

Variable Number	Group
YG221 - YG224	1
YG251 - YG252	1
YH011 - YH012	2
YH031 - YH047	2
YH054 - YH055	2
YH111 - YH130	2
YH207	2
YH301 - YH305	2
YH321 - YH322	2
YJ006	2
YJ010	2
YJ554 - YJ556	2
YJ565 - YJ575	2
YJ597 - YJ599	2
YJ874 - YJ880	2
YJ909 - YJ910	2
YK133	2
YK176 - YK177	2
YK186	2
YK191	2
YK196	2
YK201 - YK202	2
YK310 - YK312	2
YK333	2
YK338 - YK340	2
YK375 - YK378	2
YK437 - YK439	2
YK461 - YK465	2
YK471	2
YK486 - YK487	2
YK496 - YK497	2
YK521 - YK529	2
YK563 - YK565	2

Variable Number	Group
YK567 - YK570	2
YK576	2
YK580	2
YK615 - YK616	2
YK626 - YK630	2
YK632	2
YK661 - YK664	2
YK671 - YK672	2
YK676 - YK677	2
YK681 - YK686	2
YK691	2
YK713	2
YK722 - YK723	2
YK759 - YK770	2
YK776 - YK778	2
YK885 - YK899	2
YK911 - YK912	2
YK919	2
YK952 - YK956	2
YK961	2
YK972 - YK980	2
YK985 - YK992	2
YL005	2
YL115 - YL130	2
YL208 - YL218	2
YL283 - YL284	2
YL320 - YL321	2
YL351 - YL353	2
YL374	2
YL401	2
YL427 - YL429	2
YL438 - YL444	2
YL473 - YL478	2

Variable Number	Group
YL506 - YL509	2
YL534	2
YL541 - YL544	2
YL562 - YL568	2
YL592	2
YL611 - YL612	2
YL616 - YL617	2
YL621	2
YL626	2
YL631 - YL633	2
YL662 - YL664	2
YL676 - YL681	2
YL691	2
YL701 - YL702	2
YL731	2
YL751 - YL752	2
YL761 - YL769	2
YL801 - YL809	2
YL905 - YL910	2
YL921 - YL930	2
YL933 - YL936	2
YL951 - YL960	2
YM206 - YM242	1
YM273 - YM299	1
YM301 - YM397	1
YM506 - YM515	1
YM553	1
YM581 - YM582	1
YM591 - YM599	1
YM631 - YM634	1
YM641 - YM652	1
YM671 - YM674	1
YM691 - YM698	1

Variable Number	Group
YM701 - YM710	1
YM761 - YM765	1
YN002 - YN016	1
YN021 - YN024	1
YN061	1
YN071 - YN082	1
YN091 - YN092	1
YN101 - YN112	1
YN121	1
YN201 - YN202	1
YN211 - YN219	1
YN231 - YN235	1
YN261	1
YQ001 - YQ003	2
YQ011	2

### 2. Spares Affected

None.

#### **B.** Concurrent Requirements

None.

# C. Reason

This service bulletin gives instructions to inspect and replace incorrect wire bundle clamp(s) installed on a wire bundle in the left Environmental Control Systems (ECS) bay. A fully cushioned clamp should be installed to prevent potential conductor to clamp short circuits. If this service bulletin is not done, conductor to clamp short circuits could produce arcing from a hot short and introduce a potential ignition source in the center wing tank and a subsequent fire or explosion.

During a drawing review, Boeing found that some callouts for the fully cushioned wire bundle clamp(s) were accidentally left out from the production drawings in the left ECS bay. This could lead to the installation of incorrect clamp(s). It was found that an incorrect clamp could be installed at two locations on 737-600 and -700 airplanes and one location on 737-800 and 900ER airplanes. The clamp(s) that should have been installed are fully cushioned and part of the Special Federal Aviation Regulation (SFAR) 88 requirement. The production drawings have now been corrected and airplane line number 3488 and subsequent have the correct clamp(s) installed. Boeing initiated this service bulletin to address this condition.

Accomplishment of this service bulletin replaces incorrect wire bundle clamp(s) installed in the left ECS bay with fully cushioned clamp(s). Installation of fully cushioned clamp(s) will prevent an electrical fault current paths to the center wing tank caused by wiring hot shorts.

Boeing Service Related Problem (SRP) 737NG-SRP-28-0136 is related to this service bulletin.

Boeing Fleet Team Digest (FTD) 737NG FTD 28-11001 is related to this service bulletin.

Revision 1 is sent to add additional interchangeable wire bundle clamp(s) installed on a wire bundle in the left Environmental Control Systems (ECS) bay. In addition, reference to the Federal Aviation Administration (FAA) Airworthiness Directive (AD) AD 2013-04-11 is added to the compliance section. This revision also adds the use of a borescope, for clamp inspection, which could eliminate the need to remove the heat exchanger for group 1 airplanes.

# D. Description

Get access to the left side ECS bay by opening the ECS bay access door 192CL. Do a Detailed Inspection of the wire clamp(s) installed at specified location(s). If a fully cushioned clamp TA0930034-10, TA0930034-10P, TA0930034-11 or TA0930034-12P clamp has not been installed, remove the clamp, do a detailed inspection for wire damage, repair damage found, and install a TA0930034-10, TA0930034-10P,TA0930034-11 or TA0930034-12P fully cushioned wire clamp. Close left side ECS bay access door 192CL.

This service bulletin inspects additional wire clamps on the same wire bundle as Boeing Service Bulletin 737-28-1312.

Effects of this Issue on airplanes on which the Original Issue was previously done:

None.

The work in this service bulletin is done in the maintenance zone(s) given below.

#### Group 1:

Affected Maintenance Zones		
Model	Zone	
737-600, 737-700	192	

#### Group 2:

Affected Maintenance Zones		
Model	Zone	
737-800, 737-900ER	192	

#### E. Compliance

Federal Aviation Administration (FAA) Airworthiness Directive AD 2013-04-11 is related to this service bulletin.

Boeing recommends that the inspection and change given in this service bulletin be done within 60 months after the effective date of AD 2013-04-11. The effective date of AD 2013-04-11, is April 11, 2013.

### F. Approval

This service bulletin was examined by the Federal Aviation Administration (FAA). The changes specified in this service bulletin comply with the applicable regulations and are FAA approved, as well as European Aviation Safety Agency (EASA)/Joint Aviation Authorities (JAA) approved for all EASA/JAA approved airplanes listed in the service bulletin effectivity. This service bulletin and its approval were based on the airplane in its original Boeing delivery configuration or as modified by other approved Boeing changes.

If an airplane has a non-Boeing modification or repair that affects a component or system also affected by this service bulletin, the operator is responsible for obtaining appropriate regulatory agency approval before incorporating this service bulletin.

In addition, the Manager of the FAA Seattle Aircraft Certification Office approves the action (i.e. inspection or modification) defined in this service bulletin as an alternative method of compliance to the requirements of paragraph (g) of AD 2013-04-11. All provisions of AD 2013-04-11 that are not specifically referenced in the above statement remain fully applicable and must be complied with.

# G. Manpower

The table below shows an estimate of the task hours necessary to do this inspection for each airplane. This estimate is for direct labor only, done by an experienced crew. Adjust the estimate with operator task hour data if necessary. The estimate does not include lost time. These are some examples of lost time:

- Time to adjust to the workplace
- Time to schedule the work
- Time to inspect the work
- Time to cure the materials
- Time to make the parts
- Time to find the tools.

#### Group 1:

Task	Number of Persons	Task Hours	Elapsed Hours
Open Access	1	0.50	0.50
FIGURE 1	1	0.30	0.30
Left Side Primary Heat Exchanger Re- moval	2	4.00	2.00
FIGURE 3 (a)	1	0.40	0.40
Left Side Primary Heat Exchanger In- stallation	2	4.00	2.00
Close Access	1	0.50	0.50

# Group 1:

Task	Number of Persons	Task Hours	Elapsed Hours
TOTAL FOR EACH AIRPLANE		(b)	(b)
(a) The estimate given is for replacement of one clamp and does not include ti for repair if damage to the wire bundle is found. Operators should multiply total given by the number of clamps to be replaced.			
(b) The total task ho for each airplane	urs and elapsed hours is variable.	are not given as th	e work necessary

# Group 2:

Task	Number of Persons	Task Hours	Elapsed Hours	
Open Access	1	0.50	0.50	
FIGURE 2	1	0.15	0.15	
FIGURE 4 (a)	1	0.40	0.40	
Close Access	1	0.50	0.50	
TOTAL FOR EACH A	AIRPLANE	(b)	(b)	
(a) Estimate does not include time for repair if damage to the wire bundle is found.				
(b) The total task hours and elapsed hours are not given as the work necessary				

# H. Weight and Balance Changes

None.

#### I. **Electrical Load Data**

Not changed.

# References

- **Existing Data:** 
  - Boeing Service Bulletin 737-28-1312
  - Boeing Service Related Problem (SRP) 737NG-SRP-28-0136
  - Federal Aviation Administration (FAA) Airworthiness Directive (AD) 2013-04-11 C.
  - Service Bulletin Index D6-19567
  - Standard Wiring Practices Manual (SWPM) 20-10-11, 20-10-12, 20-10-13, 20-10-19 e.
  - 737-600/700/800/900 Aircraft Maintenance Manual (AMM) 06-41-00, 21-51-03

for each airplane is variable.

- g. 737NG Fleet Team Digest (FTD) 28-11001
- 2. Data Supplied with this Service Bulletin:

None.

3. Installation Drawings Used in the Preparation of this Service Bulletin:

Drawing Number	Title
288A1139	Wire Bundle Instl - Left, A/C Pack Bay and Wing to Body Fairing

The table above lists applicable drawings used to prepare this service bulletin. The drawings are not necessary to make the specified changes, and are not supplied with this service bulletin. The drawings may not be applicable to all airplane configurations or operators.

# K. Publications Affected

1. Publications:

Publication	Chapter-Section	
737 Illustrated Parts Catalog	53-51	

2. Damage Tolerance Based Structural Inspections:

Boeing has evaluated the repairs and/or changes in this service bulletin for effects on Fatigue Critical Structure (FCS) and for changes to Damage Tolerance Inspections (DTI) required in the Maintenance Program. This service bulletin does not affect FCS, therefore DTIs are not necessary.

# L. Interchangeability and Intermixability of Parts

Refer to Paragraph 2.C., Parts Necessary for Each Airplane, for interchangeability and intermixability information.

#### M. Software Accomplishment Summary

Not affected.

#### 2. MATERIAL INFORMATION

### A. Material - Price and Availability

The operator can supply the parts and materials shown in Paragraph 2.C., Parts Necessary for Each Airplane,. As an alternative, operators can purchase the parts from Boeing Spares. This service bulletin does not show the Boeing price and supply data.

### **B.** Industry Support Information

Boeing warranty remedies are available for 737-600/700/800/900ER airplanes in warranty as of June 02, 2011. For inspection man hour reimbursement for airplanes in warranty as of that date, send a warranty claim to Boeing Commercial Airplanes Group - Warranties. If the condition described in this service bulletin is found during the inspection for airplanes in warranty as of that date and additional man hours and kits, parts, and/or special tools are required, send a warranty claim to Boeing Commercial Airplanes Group - Warranties. Please refer to this service bulletin number and reference the airplane variable number(s) in your purchase order.

# C. Parts Necessary for Each Airplane

1. Kits/Parts

None

2. Parts and Materials Supplied by the Operator

#### Group 1:

Part Number / Specification	QTY	Name	Notes			
TA0930034-10 2		Fully Cushioned Clamp	(a) (b) (c)			
` '	(a) The Quantity shown is the maximum amount that may be necessary if the inspection shows incorrect clamp installation.					
(b) Can be procured from TA Aerospace, Kirkhill-TA Division of Esterline Technologies Corporation, (84971), 28065 Franklin Parkway, Valencia, California, 91380-9031.						

Fully Cushioned Clamp P/N TA0930034-10P or TA0930034-11 or TA0930034-12P is

optional and interchangeable, dependant on wire bundle diameter.

# Group 2:

Part Number / Specification	QTY	Name	Notes
TA0930034-10	1	Fully Cushioned Clamp	(a) (b) (c)

- (a) The Quantity shown is the maximum amount that may be necessary if the inspection shows incorrect clamp installation.
- (b) Can be procured from TA Aerospace, Kirkhill-TA Division of Esterline Technologies Corporation, (84971), 28065 Franklin Parkway, Valencia, California, 91380-9031.

# Group 2:

	t Number / ecification	QTY	Name	Notes
(c)	•		p P/N TA0930034-10P or TA0930034 geable, dependant on wire bundle dia	

3. Parts Modified and Reidentified

None

4. Parts Removed and Not Replaced

None

D. Parts Necessary to Change Spares

None.

E. Special Tooling - Price and Availability

None.

F. Special Tooling Necessary to do this Service Bulletin

No special tools or equipment are necessary to do the change in this service bulletin. But, maintenance and overhaul tools in the manuals given in Paragraph 1.J., References, can be necessary. Examine operator tool supply to make sure all necessary tools are available.

#### 3. ACCOMPLISHMENT INSTRUCTIONS

#### A. GENERAL INFORMATION

**CAUTION:** 

KEEP THE WORK AREA, WIRES AND ELECTRICAL BUNDLES CLEAN OF METAL PARTICLES OR CONTAMINATION WHEN YOU USE TOOLS. UNWANTED MATERIAL, METAL PARTICLES OR CONTAMINATION CAUGHT IN WIRE BUNDLES CAN CAUSE DAMAGE TO THE BUNDLES. DAMAGED WIRE BUNDLES CAN CAUSE SPARKS OR OTHER ELECTRICAL DAMAGE.

- **NOTE:** 1. Manual titles are referred to by acronyms. Refer to Paragraph 1.J., References, for definition of the acronyms.
  - Obey all of the warnings and cautions given in the specified manual sections.
  - Use the approved fastener and process material substitutions in accordance with SRM Chapter 51.
  - Refer to the SWPM 20-10-11 and SWPM 20-10-12 for the wire installation procedures, and SWPM 20-10-19 for the wire separation requirements, as accepted procedures.
  - 5. If the length of any fastener specified in this service bulletin does not meet installation standards given in SRM Chapter 51, then a fastener of the same specification, or an approved substitute, with a length which meets the installation standards given in SRM Chapter 51 may be used. In addition, washers may be installed for fastener grip length in accordance with SRM Chapter 51.
  - 6. A Detailed Inspection is defined as: An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses, etc. may be necessary. Surface cleaning and elaborate procedures may be required.
  - 7. These work instructions refer to procedures included in other Boeing documents. When the words "refer to" are used and the operator has an accepted alternative procedure, the accepted alternative procedure can be used. When the words "in accordance with" are included in the instruction, the procedure in the Boeing document must be used.
  - 8. The instructions in Paragraph 3.B., Work Instructions and the figures can include operation of tools or test equipment. Boeing Engineering Tool Drawings, the Illustrated Tool and Equipment Manual, and the Special Tool and Ground Handling Drawing Index contain data on versions of the tools or test equipment that you can use. It is permitted to use replaced tools. It is not permitted to use superseded tools.
  - If it is necessary to remove more parts for access, you can remove those parts. If you can get access without removing identified parts, it is not necessary to remove all of the identified parts. Jacking and shoring limitations must be observed.
  - 10. Where the work instructions include installation of a kept part, a new or serviceable part with the same part number can be installed as an alternative to the kept part.

#### **B. WORK INSTRUCTIONS**

1. Get access to the left side ECS bay by opening ECS bay access door 192CL. Refer to 737-600/700/800/900 AMM 06-41-00 as an accepted procedure.

#### Group 1:

Remove the primary heat exchanger to get access to the wire clamps. Refer to 737-600/700/800/900 AMM 21-51-03 as an accepted procedure. A borescope can be used to do the clamp inspection, which could make the requirement to remove the heat exchanger not necessary.

 Do a Detailed Inspection of the wire bundle to make sure that TA0930034-10, TA0930034-10P, TA0930034-11 or TA0930034-12P wire clamp(s) is/are installed. A borescope can be used to do the clamp inspection, which could make the requirement to remove the heat exchanger not necessary.

#### a. Group 1:

In accordance with FIGURE 1.

- (1) If the installed wire clamps are not TA0930034-10, TA0930034-10P, TA0930034-11 or TA0930034-12P, do a Detailed Inspection for wire damage, repair any damage found, and install new wire clamps in accordance with FIGURE 3.
- (2) If the installed wire clamps are TA0930034-10, TA0930034-10P, TA0930034-11 or TA0930034-12P no more work is necessary.

#### b. Group 2:

In accordance with FIGURE 2.

- (1) If the installed wire clamp is not TA0930034-10, TA0930034-10P, TA0930034-11 or TA0930034-12P, do a Detailed Inspection for wire damage, repair any damage found, and install a new wire clamp in accordance with FIGURE 4.
- (2) If the installed wire clamp is TA0930034-10, TA0930034-10P, TA0930034-11 or TA0930034-12P no more work is necessary.

### 4. Group 1:

Install the primary heat exchanger if removed for access. Refer to 737-600/700/800/900 AMM 21-51-03 as an accepted procedure.

- Close the left side ECS bay access door 192CL. Refer to 737-600/700/800/900 AMM 06-41-00 as an accepted procedure.
- 6. Put the airplane back in a serviceable condition.

# This Figure applies only to: Group 1.

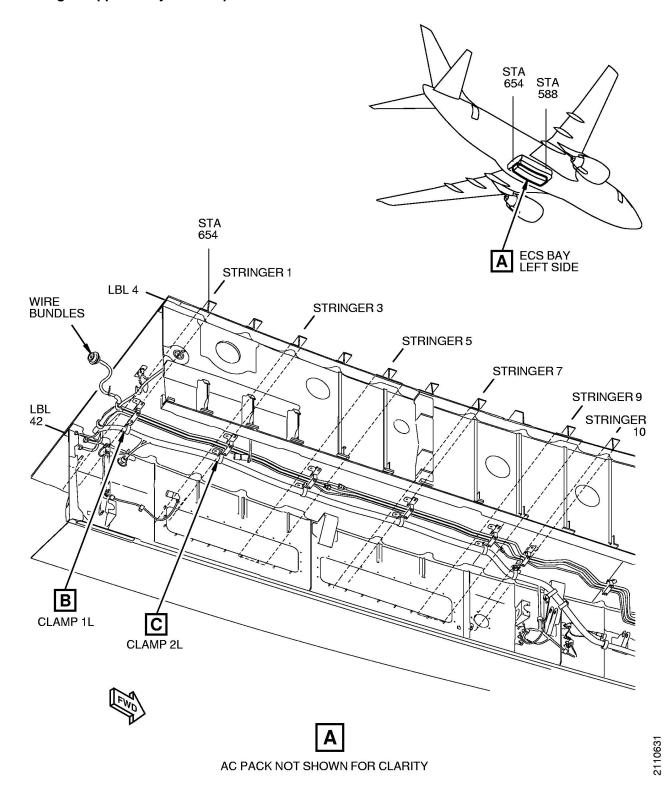


FIGURE 1: LEFT SIDE - ENVIRONMENTAL CONTROL SYSTEMS (ECS) BAY - WIRE CLAMP - INSPECTION (SHEET 1 OF 3)

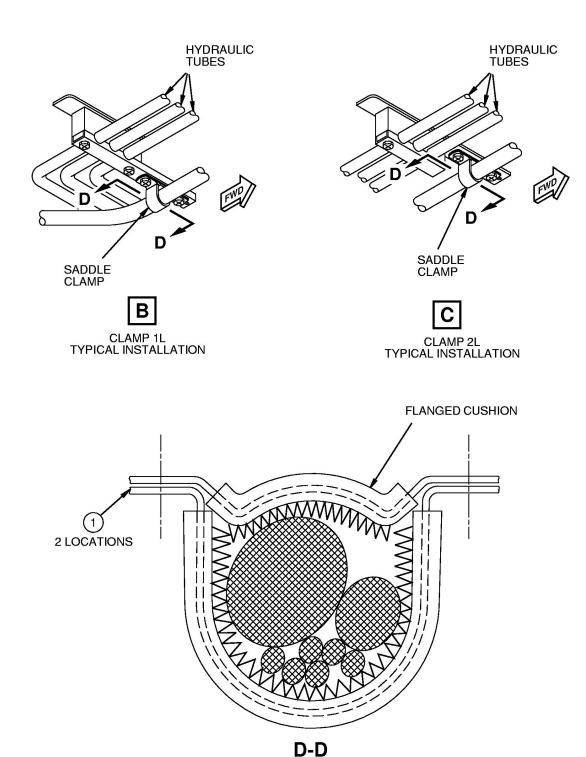


FIGURE 1: LEFT SIDE - ENVIRONMENTAL CONTROL SYSTEMS (ECS) BAY - WIRE CLAMP - INSPECTION (SHEET 2 OF 3)

TYPICAL CORRECT CLAMP INSTALLATION

The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Inspect	Clamp	-	2	(a)

<sup>(</sup>a) Do a Detailed Inspection of the wire bundle to make sure that TA0930034-10, TA0930034-10P, TA0930034-11 or TA0930034-12P wire clamps are installed.

FIGURE 1: LEFT SIDE - ENVIRONMENTAL CONTROL SYSTEMS (ECS) BAY - WIRE CLAMP - INSPECTION (SHEET 3 OF 3)

# This Figure applies only to: Group 2.

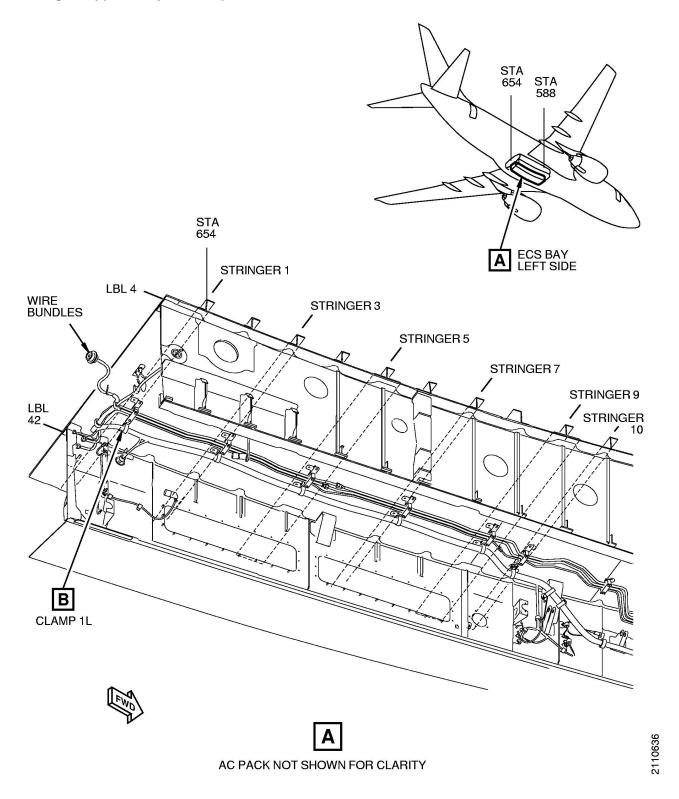
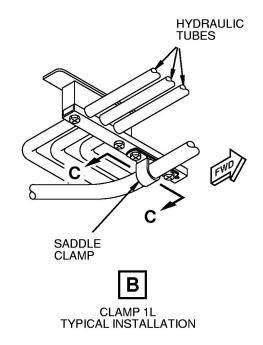
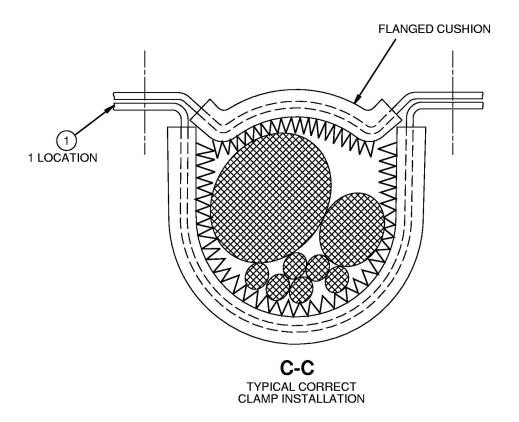


FIGURE 2: LEFT SIDE - ENVIRONMENTAL CONTROL SYSTEMS (ECS) BAY - WIRE CLAMP - INSPECTION (SHEET 1 OF 3)





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# FIGURE 2: LEFT SIDE - ENVIRONMENTAL CONTROL SYSTEMS (ECS) BAY - WIRE CLAMP - INSPECTION (SHEET 2 OF 3)

The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Inspect	Clamp	-	1	(a)

<sup>(</sup>a) Do a Detailed Inspection of the wire bundle to make sure that a TA0930034-10, TA0930034-10P,TA0930034-11 or TA0930034-12P wire clamp is installed.

FIGURE 2: LEFT SIDE - ENVIRONMENTAL CONTROL SYSTEMS (ECS) BAY - WIRE CLAMP - INSPECTION (SHEET 3 OF 3)

This Figure applies only to: Group 1.

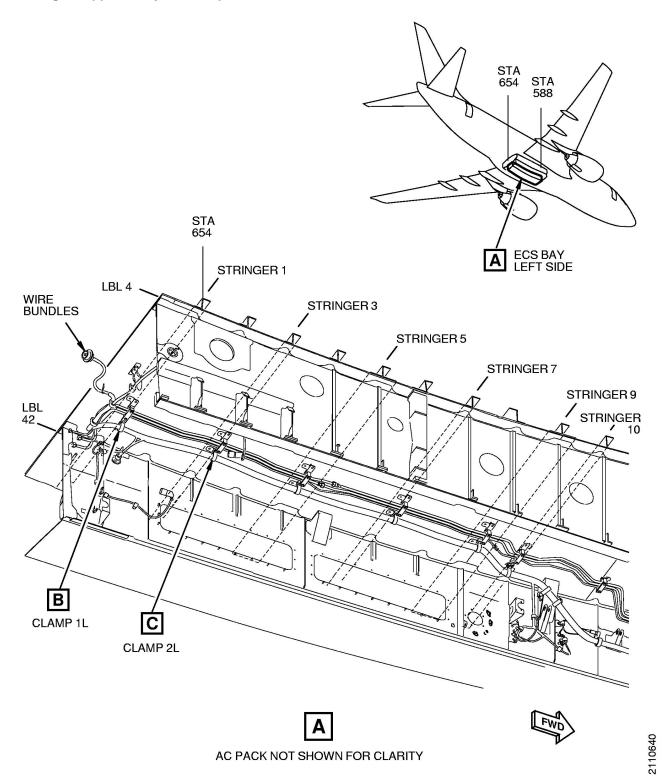
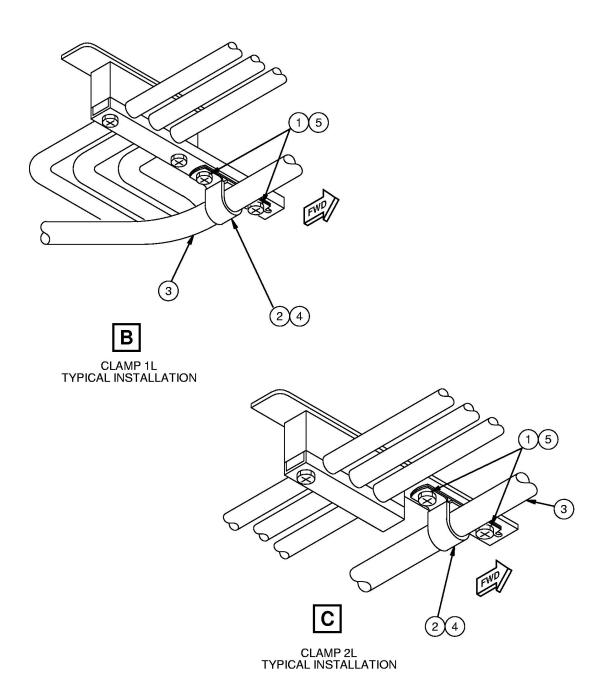


FIGURE 3: LEFT SIDE - ENVIRONMENTAL CONTROL SYSTEMS (ECS) BAY - WIRE CLAMP - REPLACEMENT (SHEET 1 OF 3)



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# FIGURE 3: LEFT SIDE - ENVIRONMENTAL CONTROL SYSTEMS (ECS) BAY - WIRE CLAMP - REPLACEMENT (SHEET 2 OF 3)

The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Remove / Keep	Fasteners	-	4	(a)
2	Remove	Clamp	-	-	
3	Inspect	Wire Bundle	-	1	(b)
4	Install (New)	Clamp	TA0930034-10 (TA0930034-10P or TA0930034-11 or TA0930034-12P option- al)	2	(c) (a)
5	Install (Kept)	Fastener	-	4	(c) (a)

<sup>(</sup>a) The Quantity shown is the maximum amount that is necessary if both clamps must be replaced.

FIGURE 3: LEFT SIDE - ENVIRONMENTAL CONTROL SYSTEMS (ECS) BAY - WIRE CLAMP - REPLACEMENT (SHEET 3 OF 3)

<sup>(</sup>b) Do a Detailed Inspection of the wire bundle for damage (chafing) at the specified clamp locations. If damaged wires are found, repair damaged wires. Refer to SWPM 20-10-13 as an accepted procedure for damage conditions and repair instructions.

<sup>(</sup>c) Refer to SWPM 20-10-12 as an accepted procedure.

# This Figure applies only to: Group 2.

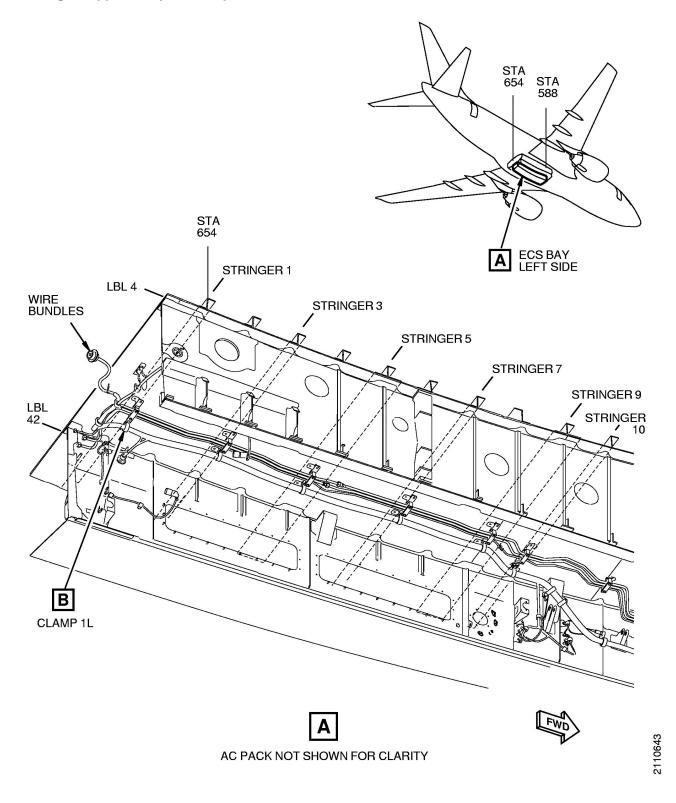
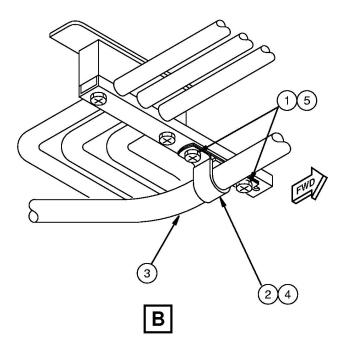


FIGURE 4: LEFT SIDE - ENVIRONMENTAL CONTROL SYSTEMS (ECS) BAY - WIRE CLAMP - REPLACEMENT (SHEET 1 OF 2)



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The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Remove / Keep	Fastener	-	2	
2	Remove	Clamp	-	1	
3	Inspect	Wire Bundle	-	-	(a)
4	Install (New)	Clamp	TA0930034-10 (TA0930034-10P or TA0930034-11 or TA0930034-12P option- al)	1	(b)
5	Install (Kept)	Fastener	-	2	(b)

- (a) Do a Detailed Inspection of the wire bundle for damage (chafing) at the specified clamp location. If damaged wires are found, repair damaged wires. Refer to SWPM 20-10-13 as an accepted procedure for damage conditions and repair instructions.
- (b) Refer to SWPM 20-10-12 as an accepted procedure.

# FIGURE 4: LEFT SIDE - ENVIRONMENTAL CONTROL SYSTEMS (ECS) BAY - WIRE CLAMP - REPLACEMENT (SHEET 2 OF 2)