SPECIAL ATTENTION

Number:	**737-24-1165**
Original Issue:	April 28, 2005
Revision 2:	April 29, 2015
ATA System:	2434

SUBJECT: ELECTRICAL POWER - Standby Power System - Removal and Replacement of the Static Inverter Module

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SPECIAL ATTENTION

Number: **737-24-1165**
Original Issue: April 28, 2005
Revision 2: April 29, 2015
ATA System: 2434

Revision Transmittal Sheet

SUBJECT: ELECTRICAL POWER - Standby Power System - Removal and Replacement of the Static Inverter Module

This revision includes all pages of the service bulletin.

COMPLIANCE INFORMATION RELATED TO THIS REVISION

Federal Aviation Administration (FAA) Airworthiness Directive AD 2009-26-03 is related to this service bulletin.

Effects of this Issue on airplanes on which the Original Issue or Revision 1 was previously done:

None.

REASON FOR REVISION

This revision is sent to add an interchangeable part to the installation and parts supplied by manufacturer sections. Also, this revision adds Federal Aviation Administration (FAA) Airworthiness Directive AD 2009-26-03.

These sections were changed:

In Summary, updated format and added Summary Evaluation Table.

In Compliance, added Airworthiness Directive.

In Manpower, updated airplanes column.

In Material Information, added paragraph reference.

In Paragraph 1.A Effectivity, updated effectivity statement.

In Paragraph 1.B Concurrent Requirements, updated format.

In Paragraph 1.C Reason, updated reason for revision.

In Paragraph 1.D Description, added effects of this Revision statement and Affected Maintenance Zones.

In Paragraph 1.E Compliance, added Airworthiness Directive.

In Paragraph 1.F Approval, change to add Airworthiness Directive and update wording.

In Paragraph 1.G Manpower, updated bullet list and table.

In Paragraph 1.I Electrical Load Data, updated statement.

In Paragraph 1.J.1 Existing Data, updated references.

In Paragraph 1.K. Publications Affected, added Publications, and Damage Tolerance Based Structural Inspections sections.

In Paragraph 1.L Interchangeability and Intermixability of Parts, changed statement.

In Paragraph 1.M Software Accomplishment Summary, updated statement.

In Paragraph 2.C.2 Parts and Materials Supplied by the Operator:, added part and flagnote.

In Paragraph 2.C.3 Part Modified and Reidentified:, updated flagnote format.

In Paragraph 2.D Parts Necessary to Change Spares:, updated format.

In Paragraph 3.A General Information, updated notes.

In Paragraph 3.B.3 Work Instructions, updated format.

In Figure 1 Removal of the Static Inverter, created flagnote to replace More Data note.

In Figure 2 Installation of the Static Inverter, added part in step table, and created flagnote to replace More Data note.

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

Pages with no vertical lines have no changes.

REVISION HISTORY

Original Issue:	April 28, 2005
Revision 1:	October 20, 2005
Revision 2:	April 29, 2015

SPECIAL ATTENTION

Number: **737-24-1165**
Original Issue: April 28, 2005
Revision 2: April 29, 2015
ATA System: 2434

Summary

SUBJECT: ELECTRICAL POWER - Standby Power System - Removal and Replacement of the Static Inverter Module

BOEING RECOMMENDS THAT EACH OPERATOR EXAMINE THIS SERVICE BULLETIN IMMEDIATELY.

CONCURRENT REQUIREMENTS

The Avionics Instruments SB 1-002-0102-1000-24-28 Supplier Component Service Bulletin is related to this service bulletin. Avionics Instruments SB 1-002-0102-1000-24-28 gives the procedures to remove a carbon composition resistor, R170, from the logic control card assembly and to install a new resistor at a different location on the logic control card assembly.

BACKGROUND

This service bulletin gives instructions to replace the static inverter with a new or changed static inverter. A static inverter changes the direct current (DC) power to alternating current (AC) electrical power. It changes the 28 volt DC from the battery to 115 volt AC to energize the AC standby bus. The AC standby power is necessary for flight safety when the sources of engine supplied AC electrical power are off. Failure of the static inverter could result in penetration of smoke into the flight compartment and lead to a possible smoke and fire event.

Boeing and Federal Aviation Administration (FAA) received reports that the static inverters can become too hot on many Boeing airplanes. In one incident, the pilots made an emergency landing after smoke got into the flight and the passenger compartments. After the emergency landing, the source of the smoke was found to be from a fire in the static inverter. Many Boeing airplane models have the same type of static inverter with the static inverter installed on the incident airplane. This change will prevent a possible unwanted smoke and fire conditions caused by a resistor in the static inverter.

Boeing Service Related Problem (SRP) 737-SRP-24-0116 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	Yes	Paragraph 1.A.2., Spares Affected
AD Related	Yes	Paragraph 1.E., Compliance and Paragraph 1.F., Approval
Weight and Balance Change	No	Paragraph 1.H., Weight and Balance Changes

Planning Data	Affected	Reference
Electrical Load Changed	No	Paragraph 1.I., Electrical Load Data
Publications Affected	Yes	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 Parts/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 (PRR 38275-80S, PRR 38685)

Get access into the main electronics equipment compartment and replace the static inverter installed on the E2-2 electronics shelf. Do a test to make sure that the replacement static inverter operates correctly.

EFFECTIVITY

737-600/-700/-700C/-800/-900/-900ER airplanes. Refer to Service Bulletin Paragraph 1.A.1 for effectivity.

COMPLIANCE

Federal Aviation Administration (FAA) Airworthiness Directive AD 2009-26-03 is related to this service bulletin. The effective date of AD 2009-26-03 is February 1, 2010.

Boeing recommends that the change given in this service bulletin be done within 42 months after the effective date of AD 2009-26-03.

INDUSTRY SUPPORT INFORMATION

Boeing warranty remedies are not available for the configuration changes given in this service bulletin.

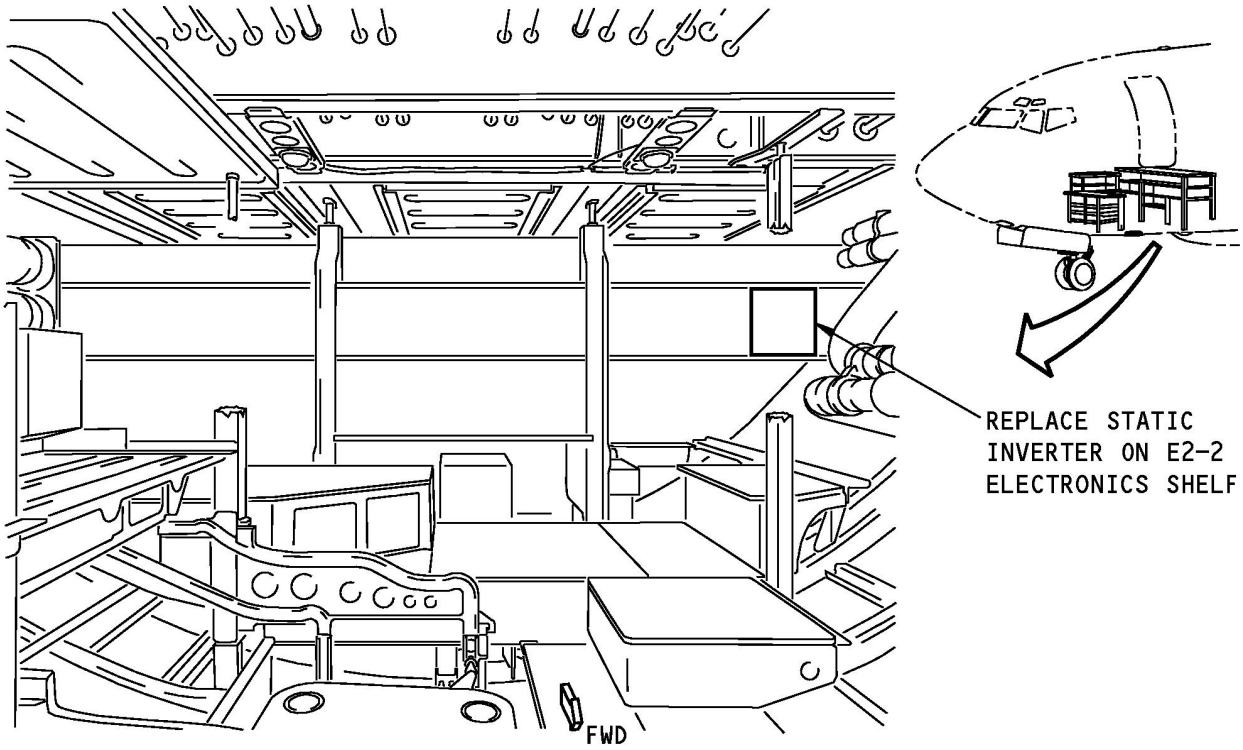
MANPOWER

Airplanes	Task Hours Total	Elapsed Time (Hours)
Group 1	1.0	1.0

MATERIAL INFORMATION

Operator Supplied Parts/Materials.

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



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SPECIAL ATTENTION

Number: **737-24-1165**
Original Issue: April 28, 2005
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ATA System: 2434

SUBJECT: ELECTRICAL POWER - Standby Power System - Removal and Replacement of the Static Inverter Module

BOEING RECOMMENDS THAT EACH OPERATOR EXAMINE THIS SERVICE BULLETIN IMMEDIATELY.

1. PLANNING INFORMATION

A. Effectivity

1. Airplanes

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

This service bulletin is for the airplanes shown below. Refer to PRR 38275-80S for data about this change.

GROUP	CONFIGURATION	DESCRIPTION
1	-	737-600/700/700C/800/900/900ER airplanes

Airplane Models:

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

Variable Number	Group
YA001 - YA099	1
YA101 - YA199	1
YA201 - YA211	1
YA221	1
YA231 - YA242	1
YA251 - YA256	1
YA271 - YA272	1

Variable Number	Group
YA291	1
YA301 - YA302	1
YA311 - YA314	1
YA321 - YA323	1
YA336 - YA345	1
YA351	1
YA356 - YA357	1
YA366 - YA367	1
YA371 - YA377	1
YA501 - YA536	1
YA541 - YA552	1
YA571 - YA578	1
YA601 - YA615	1
YA621 - YA622	1
YA626 - YA631	1
YA635 - YA636	1
YA641 - YA642	1
YA645 - YA650	1
YA656 - YA659	1
YA666 - YA667	1
YA671 - YA672	1
YA681 - YA691	1
YA701 - YA710	1
YA721 - YA722	1
YA731 - YA734	1
YA751 - YA756	1
YA801 - YA803	1
YA809	1
YA811 - YA814	1
YA831 - YA835	1
YA841 - YA862	1
YA881 - YA882	1
YA891 - YA892	1

Variable Number	Group
YA961 - YA978	1
YB001 - YB006	1
YB101 - YB132	1
YB151 - YB153	1
YB156 - YB158	1
YB161 - YB164	1
YB171 - YB172	1
YB181 - YB184	1
YB201 - YB208	1
YB271	1
YB276	1
YB301 - YB310	1
YB371 - YB392	1
YB501 - YB502	1
YB521 - YB526	1
YB541 - YB544	1
YB551	1
YB561 - YB598	1
YB601 - YB636	1
YB651	1
YB656	1
YB671 - YB672	1
YB851 - YB863	1
YB871 - YB874	1
YB881 - YB893	1
YB901 - YB903	1
YB911	1
YB961 - YB975	1
YB981	1
YB986 - YB998	1
YC001 - YC030	1
YC051 - YC084	1
YC091 - YC095	1

Variable Number	Group
YC101 - YC104	1
YC111 - YC113	1
YC121	1
YC126 - YC127	1
YC136 - YC141	1
YC146 - YC147	1
YC151 - YC156	1
YC166 - YC171	1
YC176 - YC179	1
YC186 - YC190	1
YC201 - YC203	1
YC206 - YC207	1
YC301 - YC305	1
YC321 - YC387	1
YC391 - YC394	1
YC396	1
YC401 - YC417	1
YC421 - YC422	1
YC426 - YC428	1
YC436 - YC439	1
YC441 - YC448	1
YC451 - YC455	1
YC459	1
YC461 - YC467	1
YC471 - YC499	1
YC501 - YC526	1
YC571 - YC583	1
YC587 - YC589	1
YC591 - YC593	1
YC601 - YC655	1
YC681 - YC696	1
YC701 - YC715	1
YC720 - YC725	1

Variable Number	Group
YC727 - YC752	1
YC761 - YC770	1
YC781 - YC793	1
YC801 - YC892	1
YC901 - YC907	1
YC921 - YC922	1
YC931 - YC932	1
YC941 - YC951	1
YC971 - YC978	1
YC981 - YC983	1
YD001 - YD007	1
YD021 - YD025	1
YD041 - YD057	1
YD081 - YD084	1
YD101 - YD117	1
YD121 - YD126	1
YD151 - YD159	1
YD171 - YD172	1
YD201 - YD203	1
YD206 - YD209	1
YD216 - YD219	1
YD251 - YD254	1
YD256 - YD257	1
YD261	1
YD301 - YD334	1
YD391	1
YD401 - YD410	1
YD412 - YD422	1
YD481 - YD485	1
YD491 - YD499	1
YD501 - YD512	1
YD531 - YD535	1
YD541 - YD547	1

Variable Number	Group
YD561 - YD564	1
YD571 - YD572	1
YD591 - YD595	1
YD601 - YD612	1
YD651 - YD655	1
YE001 - YE020	1
YE051	1
YE101 - YE109	1
YE151 - YE157	1
YE171 - YE172	1
YE201 - YE206	1
YE301 - YE305	1
YE321 - YE326	1
YE371 - YE383	1
YF001 - YF011	1
YF021 - YF049	1
YF051 - YF079	1
YF086 - YF087	1
YF106 - YF107	1
YF111 - YF114	1
YF116 - YF119	1
YF121 - YF132	1
YF176 - YF178	1
YF191 - YF192	1
YF201 - YF276	1
YF401 - YF402	1
YF431 - YF432	1
YF436 - YF437	1
YF441 - YF442	1
YF451 - YF460	1
YF501 - YF599	1
YF601 - YF665	1
YF701 - YF707	1

Variable Number	Group
YF801 - YF805	1
YF831 - YF832	1
YF836 - YF838	1
YF871 - YF872	1
YF901 - YF905	1
YF921 - YF928	1
YF951 - YF954	1
YG001 - YG044	1
YG061 - YG064	1
YG066 - YG089	1
YG091 - YG099	1
YG101 - YG104	1
YG111 - YG114	1
YG116 - YG142	1
YG201 - YG205	1
YG211 - YG214	1
YG221 - YG224	1
YG251 - YG252	1
YG501 - YG513	1
YG601 - YG602	1
YG701	1
YG711	1
YH001 - YH012	1
YH031 - YH055	1
YH071 - YH080	1
YH101 - YH132	1
YH201 - YH202	1
YH206 - YH207	1
YH301 - YH306	1
YH321 - YH322	1
YH501 - YH542	1
YH551 - YH594	1
YH601 - YH606	1

Variable Number	Group
YH611 - YH620	1
YH631 - YH632	1
YH636 - YH637	1
YH641	1
YH701 - YH723	1
YH801 - YH829	1
YH901 - YH904	1
YJ001 - YJ013	1
YJ021	1
YJ471 - YJ480	1
YJ501 - YJ517	1
YJ531 - YJ579	1
YJ591 - YJ599	1
YJ631 - YJ632	1
YJ671 - YJ694	1
YJ801 - YJ867	1
YJ871 - YJ880	1
YJ901 - YJ904	1
YJ908 - YJ929	1
YJ931 - YJ937	1
YJ941 - YJ956	1
YJ961	1
YJ976 - YJ977	1
YK001 - YK007	1
YK101 - YK104	1
YK111 - YK112	1
YK121 - YK122	1
YK131 - YK133	1
YK136 - YK139	1
YK141 - YK142	1
YK146 - YK148	1
YK151 - YK154	1
YK161 - YK167	1

Variable Number	Group
YK171	1
YK176 - YK177	1
YK186	1
YK191	1
YK196	1
YK201 - YK202	1
YK301 - YK314	1
YK321 - YK340	1
YK361 - YK378	1
YK401 - YK406	1
YK426 - YK427	1
YK431 - YK450	1
YK456 - YK467	1
YK471 - YK473	1
YK476	1
YK480 - YK487	1
YK491 - YK493	1
YK495 - YK499	1
YK511 - YK516	1
YK521 - YK530	1
YK551 - YK571	1
YK576 - YK577	1
YK580 - YK585	1
YK601 - YK602	1
YK606 - YK607	1
YK611 - YK616	1
YK621 - YK634	1
YK641 - YK644	1
YK651 - YK665	1
YK671 - YK672	1
YK676 - YK677	1
YK681 - YK686	1
YK691	1

Variable Number	Group
YK695 - YK699	1
YK701 - YK713	1
YK716 - YK719	1
YK721 - YK741	1
YK751 - YK770	1
YK776 - YK778	1
YK781 - YK785	1
YK791 - YK792	1
YK796 - YK797	1
YK801 - YK899	1
YK901 - YK912	1
YK918 - YK919	1
YK921 - YK929	1
YK941 - YK999	1
YL001 - YL005	1
YL011 - YL016	1
YL021 - YL024	1
YL051 - YL052	1
YL056 - YL057	1
YL061	1
YL066 - YL069	1
YL076 - YL077	1
YL101 - YL137	1
YL201 - YL237	1
YL241 - YL242	1
YL271 - YL272	1
YL281 - YL284	1
YL301 - YL303	1
YL311 - YL314	1
YL316 - YL321	1
YL351 - YL353	1
YL371 - YL374	1
YL401	1

Variable Number	Group
YL421 - YL429	1
YL431 - YL444	1
YL461 - YL478	1
YL501 - YL509	1
YL531 - YL534	1
YL541 - YL551	1
YL561 - YL579	1
YL591 - YL598	1
YL601 - YL606	1
YL611 - YL612	1
YL616 - YL617	1
YL621	1
YL626	1
YL631 - YL634	1
YL636 - YL637	1
YL661 - YL664	1
YL676 - YL691	1
YL696 - YL697	1
YL701 - YL707	1
YL731	1
YL751 - YL752	1
YL756 - YL757	1
YL761 - YL780	1
YL796 - YL797	1
YL801 - YL815	1
YL901 - YL910	1
YL921 - YL940	1
YL951 - YL968	1
YM101 - YM103	1
YM201 - YM244	1
YM251 - YM299	1
YM301 - YM399	1
YM401 - YM415	1

Variable Number	Group
YM471	1
YM481 - YM484	1
YM501 - YM515	1
YM521 - YM522	1
YM541	1
YM551 - YM553	1
YM571 - YM572	1
YM581 - YM582	1
YM591 - YM599	1
YM631 - YM634	1
YM641 - YM652	1
YM671 - YM674	1
YM691 - YM699	1
YM701 - YM710	1
YM761 - YM765	1
YM771 - YM779	1
YN001 - YN016	1
YN021 - YN024	1
YN061	1
YN071 - YN082	1
YN091 - YN092	1
YN101 - YN112	1
YN121	1
YN126	1
YN201 - YN202	1
YN211 - YN219	1
YN231 - YN236	1
YN261	1
YN501	1
YN531 - YN534	1
YN551 - YN562	1
YN581 - YN583	1
YN601 - YN606	1

Variable Number	Group
YN651 - YN653	1
YN701 - YN702	1
YN741 - YN746	1
YN756	1
YQ001 - YQ003	1
YQ011 - YQ021	1
YQ026 - YQ029	1
YQ036 - YQ045	1
YQ201 - YQ207	1
YQ231	1
YQ241 - YQ251	1
YQ281 - YQ284	1
YQ291 - YQ296	1
YQ301 - YQ302	1
YQ321 - YQ324	1
YQ331 - YQ334	1
YQ346 - YQ347	1
YQ401 - YQ403	1
YQ451 - YQ454	1
YQ456	1
YQ461	1
YQ471	1
YQ501 - YQ513	1
YR001 - YR034	1
YR051 - YR086	1
YR091 - YR098	1
YR101 - YR105	1
YR111 - YR119	1
YR126 - YR144	1
YR166 - YR182	1
YR186 - YR198	1
YR201 - YR204	1
YR231 - YR294	1

Variable Number	Group
YR296 - YR297	1
YR301 - YR334	1
YR338 - YR339	1
YR361 - YR366	1
YR371 - YR373	1
YR376	1
YR381 - YR382	1
YR386 - YR387	1
YR391	1
YR396 - YR398	1
YR401 - YR405	1
YR411 - YR413	1
YR416 - YR418	1
YR421 - YR424	1
YR426 - YR438	1
YR441 - YR449	1
YR451 - YR455	1
YR457 - YR499	1
YR501 - YR506	1
YR511 - YR520	1
YR526 - YR544	1
YR546 - YR551	1
YR556 - YR559	1
YR561 - YR562	1
YR571 - YR580	1
YR591 - YR592	1
YR601 - YR605	1
YR616 - YR648	1
YR651 - YR658	1
YR661 - YR663	1
YR671 - YR672	1
YR676	1
YR701 - YR769	1

Variable Number	Group
YR771 - YR791	1
YR801 - YR816	1
YR831 - YR838	1
YR841 - YR849	1
YR851 - YR879	1
YR901 - YR903	1
YR931 - YR934	1
YR938 - YR944	1
YR951 - YR970	1
YR981 - YR994	1
YS001 - YS002	1
YS006 - YS009	1
YS031 - YS032	1
YS051 - YS072	1
YS101 - YS120	1
YS126 - YS130	1
YS151 - YS160	1
YS166 - YS188	1
YS191 - YS194	1
YS196 - YS197	1
YS201 - YS209	1
YS221 - YS225	1
YS231 - YS235	1
YS271 - YS280	1
YS301 - YS333	1
YS351 - YS362	1
YS371 - YS374	1
YS381 - YS383	1
YS401	1
YS451	1
YS462	1
YS501 - YS502	1
YS506	1

Variable Number	Group
YS551 - YS553	1
YS561 - YS575	1
YS581 - YS585	1
YS591 - YS595	1
YS601 - YS675	1
YS686 - YS690	1
YS701 - YS708	1
YS721 - YS746	1
YS761 - YS762	1
YS771 - YS780	1
YS806 - YS810	1
YS816 - YS817	1
YS823 - YS825	1
YS851 - YS856	1
YS876	1
YS881 - YS882	1
YS901 - YS908	1
YS911 - YS915	1
YS961 - YS963	1
YS991 - YS993	1
YT001 - YT004	1
YT006	1
YT031 - YT032	1
YT036	1
YT061 - YT067	1
YT101 - YT106	1
YT136 - YT138	1
YT176	1
YT201	1
YT251 - YT265	1
YT301	1
YT306 - YT307	1
YT311 - YT312	1

Variable Number	Group
YT401 - YT403	1
YT411 - YT414	1
YT461 - YT467	1
YT601 - YT604	1
YT761 - YT765	1
YU001 - YU026	1
YU201 - YU205	1

2. Spares Affected

Examine your spares supply for the parts or components identified in Paragraph 2.C., Parts Necessary for Each Airplane. If any parts or components are found, refer to Paragraph 2.C. for the recommended use.

B. Concurrent Requirements

The service bulletin listed below must be done before or at the same time as this service bulletin:

Company	Service Bulletin	Description
Avionics Instruments	Avionics Instruments SB 1-002-0102-1000-24-28 Revision B, July 14, 2006 (a)	Gives the procedures to remove a carbon composition resistor, R170, from the logic control card assembly and to install a new resistor at a different location on the logic control card assembly.
(a) If Static Inverter S282T004-30 is to be installed this Supplier Component Service Bulletin must be accomplished. If Static Inverter S281W204-1 is to be installed this Supplier Component Service Bulletin is not required.		

C. Reason

This service bulletin gives instructions to replace the static inverter with a new or changed static inverter. A static inverter changes the direct current (DC) power to alternating current (AC) electrical power. It changes the 28 volt DC from the battery to 115 volt AC to energize the AC standby bus. The AC standby power is necessary for flight safety when the sources of engine supplied AC electrical power are off.

Boeing and Federal Aviation Administration (FAA) received reports that the static inverters can become too hot on many Boeing airplanes. In one incident, the pilots made an emergency landing after smoke got into the flight and the passenger compartments. After the emergency landing, the source of the smoke was found to be from a fire in the static inverter. Many Boeing airplane models have the same type of static inverter with the static inverter installed on the incident airplane. This change will prevent a possible unwanted smoke and fire conditions caused by a resistor in the static inverter.

The related Boeing Service Bulletin for 737-300/-400/-500 is 737-24A1166.

Boeing Service Related Problem (SRP) 737-SRP-24-0116 is related to this service bulletin.

Revision 1: This revision is sent to tell operators that more airplanes have been added in the service bulletin.

Paragraph 1.A., Effectivity, airplanes from line numbers 1726 through 1735 have been added in the service bulletin. Airplanes from line numbers 1726 through 1735 were not included in the initial release of this service bulletin but were shown in the Group Description table.

Paragraph 1.C., Reason and Paragraph 1.D., Description; information on this revision of the service bulletin has been added.

Revision 2: This revision is sent to add an interchangeable Static Inverter to Paragraph 2.C.2., Parts and Materials Supplied by the Operator, and FIGURE 2. Also, this revision adds Federal Aviation Administration (FAA) Airworthiness Directive AD 2009-26-03.

D. Description

Get access into the main electronics equipment compartment and replace the static inverter installed on the E2-2 electronics shelf. Do a test to make sure that the replacement static inverter operates correctly.

Effects of this Revision on airplanes on which the Original Issue and Revision 1 was previously done:

None

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

Affected Maintenance Zones	
Model	**Zone**
737-600, 737-700, 737-700C, 737-800, 737-900, 737-900ER	117

E. Compliance

Federal Aviation Administration (FAA) Airworthiness Directive AD 2009-26-03 is related to this service bulletin. The effective date of AD is February 1, 2010.

Boeing recommends that the change and/or repair given in this service bulletin be done within/before 42 months after the effective date of AD 2009-26-03.

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.

This service bulletin is also approved for airplanes having FAA Aviation Partners Boeing (APB) Supplemental Type Certificate (STC) number ST00830SE installed (not including any areas affected by the split scimitar winglet configuration).

For 737-700C and BBJ models that have APB winglets installed by STC number ST00830SE, the operator is responsible for obtaining appropriate regulatory agency approval before incorporating this service bulletin if the bulletin is in the area affected by blended winglets.

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 (f) of AD 2009-26-03 . All provisions of AD 2009-26-03 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 service bulletin 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.

Task	Number of Persons	Task-Hours	Elapsed Time (Hours)
Open Access	1	0.13	0.13
FIGURE 1	1	0.25	0.25
FIGURE 2	1	0.25	0.25
Do Functional Test	1	0.25	0.25
Close Access	1	0.12	0.12
TOTAL FOR EACH GROUP 1 AIR-PLANE		1.0	1.0

The time to make the change to the Static Inverter in accordance with Avionics Instruments SB 1-002-0102-1000-24-28 Service Bulletin is not included.

H. Weight and Balance Changes

None.

I. Electrical Load Data

Not changed.

J. References

1. Existing Data:

   a. Engineering Change Memo PRR 38275-80S, PRR 38685

   b. Boeing Service Bulletin 737-24A1166

   c. Boeing Service Related Problem (SRP) 737-SRP-24-0116

   d. Federal Aviation Administration (FAA) Airworthiness Directive (AD) 2009-26-03

   e. Standard Wiring Practices Manual (SWPM) 20-10-11, 20-10-12, 20-10-19

   f. 737-600/700/800/900 Aircraft Maintenance Manual (AMM) 20-10-07, 20-40-12, 20-50-11, 24-22-00, 24-34-21, 52-48-41

   g. Avionics Instruments Service Bulletin Avionics Instruments SB 1-002-0102-1000-24-28

2. Data Supplied with this Service Bulletin:

   None.

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

Drawing Number	Title
284A0420	EQUIPMENT INSTALLATION- MAIN ELECTRONICS COMPARTMENT
284A0421	EQUIPMENT INSTALLATION- MAIN ELECTRONICS COMPARTMENT

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

4. Process Data:

   Boeing Process specifications referred to on the drawings are not given in this service bulletin since these procedures are frequently used as standard shop practices.

K. Publications Affected

1. Publications:

Publication	Chapter-Section
737 Aircraft Maintenance Manual	24-34
737 Wiring Diagram Manual	Equipment List
737 Illustrated Parts Catalog	24-34

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.

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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.

Reference this service bulletin and submit your purchase order by one of the methods that follow:

1. Order on-line via ATA Spec 2000 or Boeing Part Page
2. Fax to (206) 662-7145
3. Spares Customer Support - MC 36-65 Boeing Spares Department P.O. Box 3707 Seattle, Washington 98124-2207 USA

B. Industry Support Information

Boeing warranty remedies are not available for the configuration changes given in this service bulletin.

C. Parts Necessary for Each Airplane

1. Kits/Parts:

   None.

2. Parts and Materials Supplied by the Operator:

New Part Number	Supplier Part Number	QTY	Name	Existing Part Number	Supplier Part Number	Notes
S282T004-30	1-002-0102-2090	1	Static Inverter	S282T004-10 or	1-002-0102-1000 or	(a) (b) (c)
			Static Inverter	S282T004-20	1-002-0102-2062	(a) (b) (c)
S281W204-1 (optional)	1-002-0102-2170	1	Static Inverter	-	-	(b) (c)
(a) Make the change given in the Avionics Instruments SB 1-002-0102-1000-24-28 Supplier Component Service Bulletin. This is the new part number for the static inverter after the change given in the component service bulletin 1-002-0102-1000-24-28 is done.						
(b) Supplier Information: Supplier Cage Code: 10933, Avionics Instruments, 1414 Randolph Avenue, Avenel, New Jersey U.S.A.						
(c) One S282T004-30 or S281W204-1 is necessary. S281W204-1 and S282T004-30 are interchangeable.						

3. Parts Modified and Reidentified:

Existing Part Number	QTY	Name	New Part Number	Notes
S282T004-10	1	Static Inverter	S282T004-30	(a)
S282T004-20	1	Static Inverter	S282T004-30	(a)

(a) This reference table shows the related static inverter part numbers. Make the changes as given in the Avionics Instruments SB 1-002-0102-1000-24-28 Supplier Component Service Bulletin. The New Part Number is the new part number for the static inverter after the change given in the Avionics Instruments SB 1-002-0102-1000-24-28 Supplier Component Service Bulletin is done.

4. Parts Removed and Not Replaced:

None.

D. Parts Necessary to Change Spares

Refer to the Avionics Instruments SB 1-002-0102-1000-24-28 Supplier Component Service Bulletin for the component modification.

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.

2. Obey all of the warnings and cautions given in the specified manual sections.

3. Unless shown differently, these dimensions and tolerances are used:

- Linear dimensions are in inches
- Tolerance on linear dimensions, other than rivet and bolt edge margins, is plus or minus 0.03 inch
- Tolerance on rivet and bolt edge margin is plus or minus 0.05 inch
- Angular tolerance is plus or minus 2 degrees
- Hole dimensions for standard solid rivets and fasteners are in Structural Repair Manual (SRM) Chapter 51
- Torque Values:
  - Values for structural fasteners are given in 737 Structural Repair Manual, Chapter 51.
  - Values for airframe maintenance tasks are included in Chapter 20 of 737 Aircraft Maintenance Manual (AMM).
  - Values for electrical maintenance tasks are included in Chapter 20 of Standard Wiring Practices Manual (SWPM).
  - Values for engine maintenance tasks are included in Chapter 70 of 737 Aircraft Maintenance Manual (AMM).
  - Non-standard torque values for maintenance tasks are included in the applicable installation step.

4. Use the approved fastener, process and material substitutions in accordance with SRM Chapter 51.

5. 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.

6. 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.

7. 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.

8. 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.

9. 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.

10. This service bulletin includes functional test procedures for the systems changed by this service bulletin. More functional tests can possibly be necessary in accordance with standard maintenance practices because of interruption to other airplane systems.

11. The compliance times for the actions in Paragraph 3.B., WORK INSTRUCTIONS are in Paragraph 1.E., Compliance.

B. WORK INSTRUCTIONS

1. In the flight compartment, remove electrical power from the airplane. Refer to 737-600/700/800/900 AMM 24-34-21 as an accepted procedure..

2. At the lower forward fuselage, open the access door 117A to get access into the main electronic equipment compartment. Refer to 737-600/700/800/900 AMM 52-48-41 as an accepted procedure.

CAUTION: DO NOT TOUCH THE STATIC INVERTER BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE STATIC INVERTER. HANDLE THE STATIC INVERTER AS SHOWN IN 737-600/700/800/900 AMM 20-40-12 AS AN ACCEPTED PROCEDURE.

3. In the main electronic equipment compartment, remove the static inverter from the E2-2 electronics shelf in accordance with FIGURE 1.

NOTE: Refer to the Avionics Instruments SB 1-002-0102-1000-24-28 for the static inverter component modification procedures.

4. Install a new or changed static inverter on the E2-2 electronics shelf in accordance with FIGURE 2.

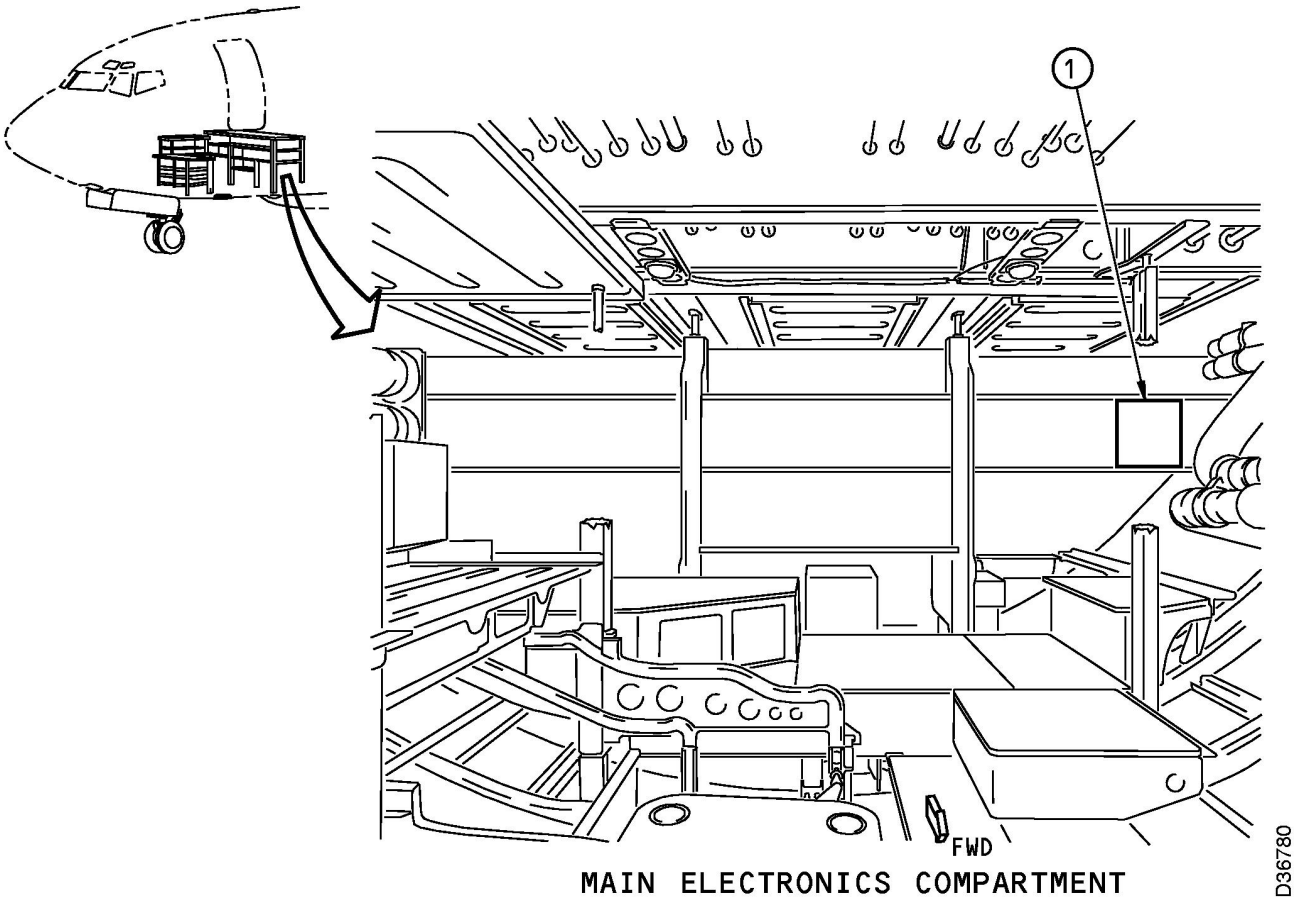
5. Apply electrical power to the airplane. Refer to 737-600/700/800/900 AMM 24-22-00, 737-600/700/800/900 AMM 24-34-21 as an accepted procedure.

6. Do the Static Inverter Installation Test to make sure that the static inverter operates correctly. Refer to 737-600/700/800/900 AMM 24-34-21 as an accepted procedure.

7. Remove electrical power from the airplane. Refer to 737-600/700/800/900 AMM 24-22-00, 737-600/700/800/900 AMM 24-34-21 as an accepted procedure.

8. At the lower forward fuselage, close the access door 117A to the main electronic equipment compartment. Refer to 737-600/700/800/900 AMM 52-48-41 as an accepted procedure.

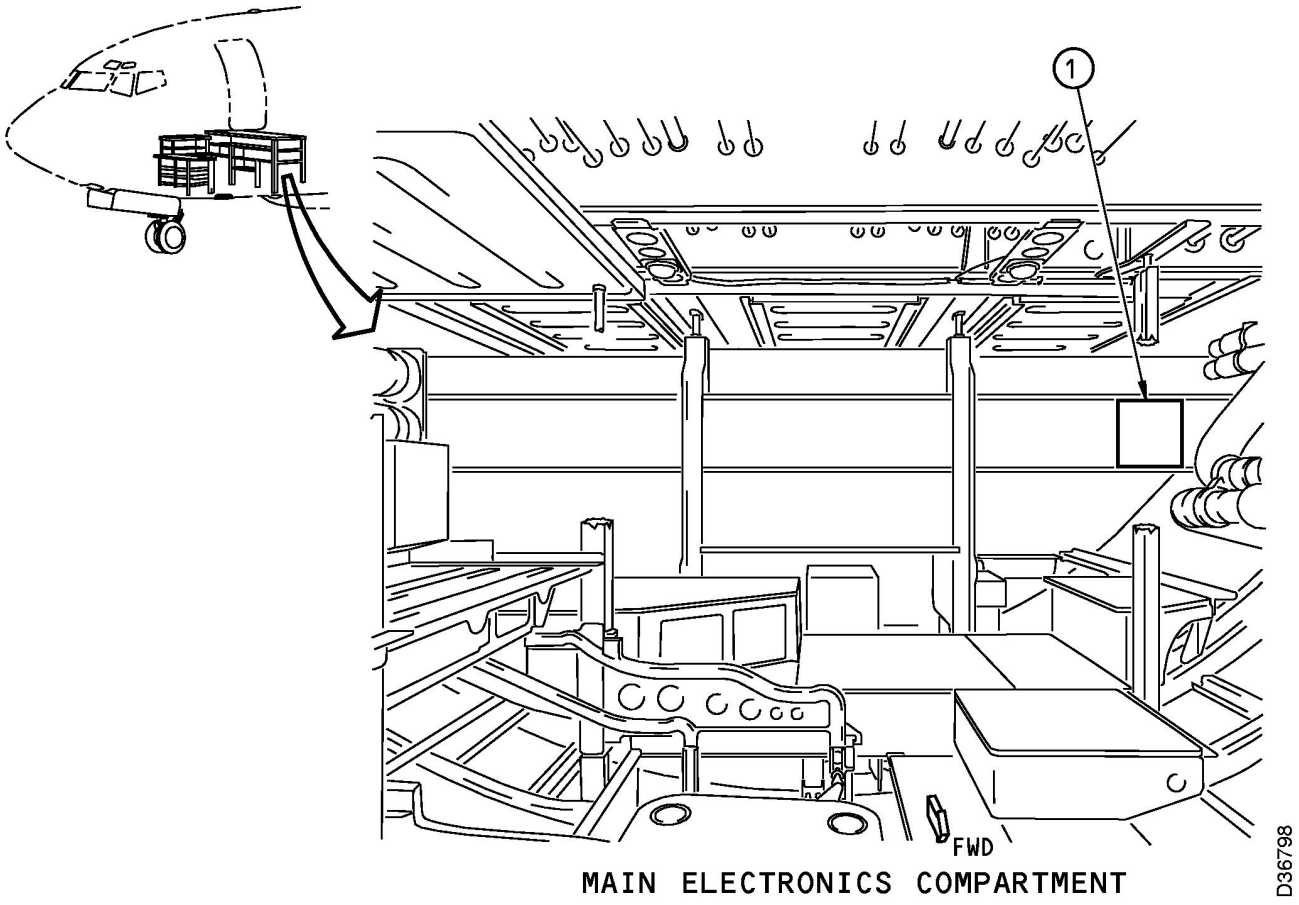
9. Put the airplane back to a serviceable condition.



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

STEP	TASK	PART NAME	IDENTIFICATION	QTY	MORE DATA
1	Remove	Static Inverter	S282T004-10 (Supplier Part Number: 1-002-0102-1000) or S282T004-20 (Supplier Part Number: 1-002-0102-2062)	1	(a)
(a) From the E2-2 electronics shelf. Refer to 737-600/700/800/900 AMM 20-10-07 and 737-600/700/800/900 AMM 24-34-21 as an accepted procedure.					

FIGURE 1: REMOVAL OF THE STATIC INVERTER
(SHEET 1 OF 1)



MAIN ELECTRONICS COMPARTMENT

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

STEP	TASK	PART NAME	IDENTIFICATION	QTY	MORE DATA
1	Install (New or Changed)	Static Inverter	S282T004-30 (Supplier Part Number: 1-002-0102-2090) or S281W204-1 (Supplier Part Number: 1-002-0102-2170)	1	(a)
(a) On the E2-2 electronics shelf. Refer to 737-600/700/800/900 AMM 20-10-07, 737-600/700/800/900 AMM 20-50-11 and 737-600/700/800/900 AMM 24-34-21 as an accepted procedure.					

FIGURE 2: INSTALLATION OF THE STATIC INVERTER
(SHEET 1 OF 1)