Service Bulletin Title: **Comair B737 Livery Drawing Package**

Aircraft Applicability: B737-800

Description: This Service Bulletin has been issued for the removal of the present aircraft livery and the application of a new external livery per customer requirements.

Written:		Robert Moloney 25 Oct 2016
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Office of Airworthiness:		Keith McKerchar 27 Oct 2016

The technical content of this document is approved under the authority of DOA ref. EASA.21J.452.

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Document Issue Record

Issue	Date	Changes	WRT	CVE	OoA
1	27 Oct 2016	Initial issue.	RM	FT	KMcK

This document is updated as a whole and not as individual pages.

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1. SUBJECT

This Service Bulletin removes the present aircraft livery and applies a new external livery per customer requirements. Exterior mandatory placards and technical markings are applied IAW the AMM.

2. EFFECTIVITY

This SB is applicable to the following aircraft:

No	A/C Type	MSN	Group
1	B737-800	33013	1

3. INTRODUCTION

This Service Bulletin removes the present aircraft livery and applies an external paint Livery into Comair requirements including exterior mandatory placards and technical markings to a B737-800 aircraft.

4. AIRWORTHINESS APPROVAL BASIS

This Service Bulletin has been approved under the Eirtech Design Change number ERT/CNG/904.

5. COMPLIANCE

Eirtech Aviation recommends this service bulletin be accomplished at the operator's discretion.

6. CONCURRENT REQUIREMENTS

There are no concurrent requirements as part of this change.

7. MANPOWER

The table below shows an estimate of the task hours necessary to do this change for a single aircraft. This estimate is for direct labour only, done by an experienced crew. The estimate does not include lost time, Examples of lost time include:

- Time to adjust 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

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Group 1:

Task	No. of Persons	Task hours	Elapsed Hours
Removal and application of paint livery	10	1800	180
Total			**180**

8. PROVISIONING

8.1 Material Requirements

8.1.1 Parts supplied by Eirtech:

None.

8.1.2 Parts supplied by the Customer:

QTY	Description	Part Number	Alternate P/N / Colour Code
A/R	Paint – White	8000/B70846-KCHO	BAC 70846
A/R	Paint – Red	8000/B1419-KCHO	BAC 1419
A/R	Paint – Blue	8000/B51116-KCHO	BAC 51116
A/R	Paint – Grey	8000/B707-KCHO***[1]***	BAC 707
A/R	Paint – Black	8000/B701-KCHO	BAC 701
A/R	Paint – Red (Static Ports)	8000/B1839-KCHO	BAC 1839
A/R	Paint – Burgundy (Dots)	8000/B01479-KCHO	BAC 1479
A/R	Paint – Dark Blue (Dots)	8000/B00574-KCHO	BAC 574
A/R	Paint – Pink (Dots)	8000/B01847-KCHO	BAC 1847
A/R	Paint – Blue (Shadow)	8000/B50310-KCHO	BAC 50310
A/R	Paint – Light Grey (Shadow)	8000/B07220-KCHO	BAC 7220
A/R	Primer	***[2]***	-
2	Stencil – Fuselage Registration	-	-
1	Stencil – Wing Registration	-	-
2	Stencil – NLGD Registration	-	-
1	Stencil – Tail LH	-	-
1	Stencil – Tail RH	-	-
2	Stencil – Winglet (LH INBD & RH OUTBD)	-	-
2	Stencil – Winglet (RH INBD & LH OUTBD)	-	-
1	Stencil – Ribbon LH	-	-
1	Stencil – Ribbon RH	-	-

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QTY	Description	Part Number	Alternate P/N / Colour Code
2	Stencil – Fuselage Logo	-	-
2	Stencil – FWD Fuselage Logo	-	-
2	Stencil – RVSM Markings	-	-

Notes: ***[1]*** Note that specific additional painting instructions and materials are applicable to the inspar areas of the upper and lower wing surfaces. Refer to AMM 51-21-95 for further details.

[2] All primers used must be compatible with overall paint system used. Refer to paint suppliers documentation, B737 AMM and Boeing document D6-1816 for further information.

8.2 Special Tooling

No special tooling required.

9. WEIGHT & BALANCE

The weight and balance is affected by this Change. The aircraft weight and balance will be established by weighing or by calculation upon completion of this Service Bulletin.

10. REFERENCES

10.1 Required Data Not Supplied with this Document

- B737-800 AMM
- B737-800 IPC
- B737-800 SRM
- D6-1816 - Boeing process Document for Decorative Finishing of Airplane Exteriors

10.2 Data Supplied with this Document

DOCUMENT NO.	ISSUE/REV	TITLE
ERT/904-100	1	Comair B737 External Livery – General Arrangement
ERT/904-201	1	B737-800 Comair Livery

10.3 Vendor Reference Data

None.

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11. PUBLICATIONS AFFECTED

PUBLICATION	CHAPTER/SECTION
WBM (Weight and Balance Manual)	2

12. INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

Existing Type Certificate Holder Instructions for Continuing Airworthiness covers the repair and maintenance of the external livery. Various decals may require to be removed partially or completely to facilitate maintenance and inspection. This should be performed in accordance with approved procedures detailed in the aircraft maintenance manual. The removed items should then be re-installed per the AMM.

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13. ACCOMPLISHMENT INSTRUCTIONS

Notes:

1. It is recommended that this SB be read entirely prior to accomplishment
2. To accomplish this SB gain access to the affected areas of the aircraft by opening or removing appropriate doors and panels.
3. Refer to associated Maintenance Manual Supplements as required.
4. Ensure all parts being installed have an appropriate Form 1 or equivalent, and an applicable burn test Certificate.
5. Obey all warnings and cautions given in the specified manual sections.
6. The accomplishment instructions described in section 13.2 of this SB show the recommended sequence of steps. The sequence of these steps can be changed.

WARNING: OBEY THE MANUFACTURER'S INSTRUCTIONS WHEN YOU USE STRIPPERS.

WARNING: OBEY THE MANUFACTURER'S INSTRUCTIONS WHEN YOU USE THE CLEANING AGENTS.

CAUTION: MAKE SURE THAT THE RUBBER, ALL COMPOSITE PARTS, ACRYLIC MATERIALS, AERODYNAMIC SMOOTHER, METAL BONDED EDGES, PITOT PROBES, SENSORS, STATIC PORTS, ENGINE AIR INTAKE, PRECOOLER AIR OUTLET SCREEN, ENGINE EXHAUST DUCT, APU EXHAUST, APU INTAKES AND OUTLETS, AIR CONDITIONING FRESH AIR INTAKE, LANDING GEARS, DOOR SEALS, ACCESS DOORS, CABIN WINDOW AND WINDSHIELD PANELS AND SEALS, ELECTRICAL EQUIPMENT AND CABLES, PLASTIC MATERIALS, EXTERNAL SKIN JOINTS, HIGH STRENGTH STEEL PARTS HEAT TREATED ABOVE 1400MPA, AVIONICS SKIN TEMPERATURE SENSOR SUPPORT EXTERNAL FACE IS PROPERLY PROTECTED AGAINST STRIPPERS BY MASKING.

CAUTION: MAKE SURE THAT DRAIN HOLES AND VENTS ARE PROPERLY PROTECTED AGAINST STRIPPERS BY PLUGGING.

CAUTION: MAKE SURE THAT THE PAINT STRIPPERS DO NOT COME IN CONTACT WITH TEFLON-LINED SELF-LUBRICATED BEARINGS, ELECTRICAL TERMINAL PLUGS, NYLON-COATED WIRES AND NYLON BRUSHES.

CAUTION: ENSURE THAT ALL MASKING MATERIALS ARE REMOVED FROM THE REPAIR AREA ON COMPLETION OF WORK, PAY SPECIAL ATTENTION TO PITOT HEADS AND STATIC PORTS.

NOTE: THE REMOVAL OF PAINT FROM METAL SURFACES IS DONE BY EITHER CHEMICAL STRIPPING OR BY ABRASION.

NOTE: COMPOSITE SURFACES MUST NOT BE CHEMICALLY STRIPPED AS THE STRIPPERS MAY ATTACK THE RESINS. THEREFORE, ONLY ABRASION SHOULD BE USED.

NOTE: FOR EACH AIRCRAFT TO BE CHEMICALLY STRIPPED & REPAINTED FOLLOW ALL WORK INSTRUCTIONS AS DESCRIBED BELOW. FOR EACH AIRCRAFT TO BE MECHANICALLY ABRADED & REPAINTED, WORK INSTRUCTIONS 13.3.1, 13.3.2, 13.4.1, 13.5.1 & 13.5.2 ARE NOT APPLICABLE.

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13.1 Preparation.

		MECH	INSP
13.1.1	Carry out a visual inspection of all areas using customer supplied Dent and Buckle chart, highlight any unrecorded damage prior to work starting.		
13.1.2	Clean the surfaces as per subtask 51-21-11-110-003 of the AMM.		

13.2 Removal of Paint by Abrasion – Metallic and Composite Materials.

		MECH	INSP
13.2.1	Accomplish the removal of paint by abrasion IAW the procedure outlined in subtask 51-21-11-150-815 of the AMM, for composite materials.		
13.2.2	Sand or abrade metallic materials IAW Boeing 'Process Document for Decorative Finishing of Airplane Exteriors' Document No. D6-1816 Rev AV.		

13.3 Preparation For Chemical Stripping – If required.

		MECH	INSP
13.3.1	Prepare the aircraft for paint stripping per the applicable procedures outlined in task 51-21-11-370-801of the AMM.		
13.3.2	Protect and mask off all sealant on lap and butt joints with aluminium tape.		

13.4 Application of Paint Stripper – If required.

		MECH	INSP
13.4.1	Follow the paint stripping procedure provided in AMM 51-21-11-150-801 subtask 51-21-11-150-001.		

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13.5 Cleaning After Chemical Stripping – If required.

		MECH	INSP
13.5.1	Rinse and clean all stripped areas IAW AMM 51-21-11.		
13.5.2	Wash the aircraft to neutralize the paint-stripper and rinse with water.		

13.6 Stage Inspection

		MECH	INSP
13.6.1	IAW IAA AERONAUTICAL NOTICE A37 or any local regulatory requirement of aircraft register, if applicable, inspect the aircraft externally paying particular attention to the following: • Lap Joints • Butt Joints • Fuselage Skin • Window frames • Area's around Pitot & Static Probes & Ports • Identification of any Lightning Strikes • Leading edges of Nose Cowls • Slats • Ensure all pitot static, pitot ports, AOA sensors, OAT and TAT probes are clean and free from adhesive • Drain holes not blocked on lower fuselage and engine cowls, • All external lights clean and visible, • All outflow valves operating freely, • No tools, rags or foreign debris in areas of flight controls, • No obvious external damage not previously recorded. When performing the Stage Inspection, the inspector shall consider the following matters (as applicable): Damage which may have been caused during preparation work which could adversely affect the structural integrity of the aircraft such as: • Reduction in fastener head by uncontrolled use of power tools and/or abrasive media. • Surface scratching caused by paint scrapers. • Degradation of composite or plastic surfaces caused by abuse of particle blasting techniques. This task to be accomplished and certified in the Aircraft technical Log or on separate documentation by an authorised EASA Part 145 organization.		

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13.7 Preparation for Repainting.

		MECH	INSP
13.7.1	Clean the surfaces to be painted as per AMM 51-21-21-100-801.		
13.7.2	Prepare the surfaces to be painted as per AMM 51-21-21-370-801.		

13.8 Fuselage, wings and empennage – Reapplication of primers and topcoats.

NOTE: ALL PAINT AND MARKINGS TO BE ACCOMPLISHED IAW DRAWINGS ERT/904-201.

NOTE: APPLY ALL PAINT WITH REFERENCE TO DRAWING ERT/904-201.

		MECH	INSP
13.8.1	Reapply primer and paint as required to all affected exposed fuselage areas IAW AMM 51-21-11 and 51-21-99. Refer to drawing ERT/904-201.		
13.8.2	Reapply primer and paint as required to Vertical Stabilizer including Rudder, IAW AMM 51-21-11 and 51-21-99. Refer to drawing ERT/904-201.		
13.8.3	If applicable reapply primer and paint as required to Horizontal Stabilizer including, Elevators, IAW AMM 51-21-11 and 51-21-99. Refer to drawing ERT/904-201.		
13.8.4	If applicable reapply primer and paint as required to Wings including, Ailerons, IAW AMM 51-21-11 and 51-21-99. Refer to drawing ERT/904-201. **Note:** Specific additional painting instructions and materials are applicable to the inspar areas of the upper and lower wing surfaces. Refer to AMM 51-21-95 for further details.		
13.8.5	If applicable reapply primer, paint as required to left hand and right hand Engine cowls and pylons IAW AMM 51-21-11 and 51-21-99. Refer to drawing ERT/904-201.		
13.8.6	Following the completion of primer application, ensure all applicable bare metal and surfaces that have been sanded have been primed. When performing the stage inspection, the Inspector shall consider the following matters (as applicable): • The possible variation to the surface profiles of critical areas caused by uncontrolled use of the fillers or by excessive paint thickness.		

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13.9 Technical Markings & Operator Logos.

NOTE: ALL PAINT AND MARKINGS TO BE ACCOMPLISHED IN ACCORDANCE WITH DRAWING ERT/904-201.

NOTE: ALL EXTERIOR MANDATORY MARKINGS MUST BE IN ENGLISH AND APPLIED I.A.W THE AMM. REFER TO DRAWING ERT/904-201.

		MECH	INSP
13.9.1	Apply all Operator logos and Aircraft registration markings in accordance with AMM 51-21. Refer to Drawing ERT/904-201.		
13.9.2	Reapply all removed exterior placards in accordance with AMM chapter 11. Refer to Drawing ERT/904-201. Note: Exterior markings are to be in English.		
13.9.3	If removed, reapply LH and RH over wing emergency walkway coating and markings IAW AMM 51-21-97. Refer to Drawing ERT/904-201.		
13.9.4	If removed, apply a 2" (51mm) band around both the doors and emergency exits to contrast the surrounding fuselage so as to make the exit readily distinguishable. Refer to drawings ERT/904-201.		
13.9.5	If applicable apply a temporary registration to cover all registration marks applied as part of this livery Change. Temporary registration to be decals with black letters on a white or grey background. If no temporary registration is applied, this step can be disregarded.		
13.9.6 **Note:**	If applicable, with reference to the Dent & Buckle (D&B) chart apply marking on each area of recorded damage. This marking should be a circle, approx. 15mm in diameter, applied as a stencil or decal. The colour should be in sufficient contrast to the surrounding area to aid D&B inspections but should not contrast the surrounding colour in a manner that would interfere with the definition of the livery.		

13.10 Application of Edgesealer.

		MECH	INSP
13.10.1	Apply Edge-sealer on the following areas: • Around all cabin windows. • Around all static ports. • Around the edge of the paint on both engine nose cowlings. • On the edge of the paint on both sides of the vertical stabilizer. • On the edge of the paint on both sides of the horizontal stabilizer.		

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13.11 Final Work.

		MECH	INSP
13.11.1	Remove all masking and scaffolding, and prepare aircraft for delivery by performing the following steps. **NOTE:** REMOVE THE WINDOW COVERS AND MASKING FOR ALL BARE-METAL AREAS (E.G. STATIC PORTS, LEADING EDGE ON VERTICAL STABILIZER) AS SOON AS POSSIBLE AFTER SPRAYING THE TOPCOAT TO OBTAIN THE BEST POSSIBLE ADHESION.		
13.11.2	IAW local regulatory requirement of aircraft register if applicable, inspect the aircraft externally paying particular attention to the following: • Ensure all pitot static, pitot ports, AOA sensors, OAT and TAT probes are clean and free from adhesive, • Drain holes not blocked on lower fuselage and engine cowls, • All external lights clean and visible, • All outflow valves operating freely, • No tools, rags or foreign debris in areas of flight controls, • No obvious external damage not previously recorded. This task to be accomplished and certified in the Aircraft technical Log or on separate documentation by an authorised EASA Part 145 organization.		
13.11.3	Balance the Rudder (if applicable) by following the procedure outlined in SRM 51-60-00.		
13.11.4	Balance the Elevator and Elevator tabs (if applicable) by following the procedure outlined in SRM SRM 51-60-00.		
13.11.5	Balance the Ailerons and Aileron tabs (if applicable) by following the procedure outlined in SRM SRM 51-60-00.		

13.12 Aircraft Reweighing.

		MECH	INSP
13.12.1	Reweigh the aircraft I.A.W AMM Chapter 08-11-00. As an alternative the new operating empty weight and centre of gravity can be determined by calculation. This task to be accomplished and certified in the Aircraft technical Log or on separate documentation by an authorised EASA Part 145 organization.		

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Embodiment Issue/Occurrence Report

In the event of any difficulty with the embodiment of this Service Bulletin, or operational incident or occurrence resulting from its embodiment, contact the Eirtech Design Organisation by telephone on 00 353 61 471 800. Following the telephone call, this sheet should be used to describe the problem, issue or incident.

Please provide the following details

Aircraft Registration:	Aircraft MSN:	Component Part Number:
Submitted by (Name):	Organisation:	Department:
Telephone:	e-Mail or Fax:	
Description of Problem, Issue, Incident or Occurrence:		
Requested Design Change (if any): Attach additional sheets as necessary.		

The completed form should be sent by e-mail attachment to ERT_Eng@etas.ie

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SERVICE BULLETIN REPORT SHEET

The Report Sheet is provided for the purpose of communicating to the Design Organisation any errors or suggested improvements arising during accomplishment of this Service Bulletin.

Please rate on a scale of 1 to 4, with 4 being the highest score:	1	2	3	4
- Quality rating of this Design Change Work Order				
- Quality rating of the Accomplishment Instructions				
- Quality rating of the Illustrations / Drawings (if applicable)				
- Ease of understanding				

If you have had problems or issues raised in the accomplishment of this Service Bulletin please indicate below the area(s) and give a brief description of the issue(s).

Planning		Material		Instructions	
Effectivity		Kit content		Clarity of instructions	
Description		List of materials		Embodiment instructions	
References		Tooling		Test	
Publication		Re-identification		Close-Up	
				Illustrations	
Description of Problem or Issue:					

Reporters Information

Name:

Title:

Organisation:

Please return the completed form to:

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