



# TRANSMITTAL LETTER

## 1. DESCRIPTION

This sheet transmits Revision 01 to Service Bulletin 500-21-0001.

This revision incorporates the information presented in the Information Notice related to the previous issues of this Service Bulletin, as listed below:

None.

## 2. ADDITIONAL ACTION

Aircraft that have complied with the previous issue of this bulletin do not need any additional action.

## 3. RECORD OF REVISION

Basic issue: 09/Dec/2009

Revision 01: 20/Nov/2012

## 4. HIGHLIGHTS

The topics, affected pages, and a brief description of the content-related changes introduced by this revision are presented below.

Revision bars are put in the left margin of each page to show the location of the significant changes. Text displacement and text format changes are not indicated.

TOPIC/PAGE	DESCRIPTION OF REVISION
1. PLANNING INFORMATION	
1.A. SB EFFECTIVITY / 02	Updated service bulletin and in-production effectivity.
1.C. REASON / 03	Added reason for revision 01.
2. MATERIAL INFORMATION	
2.C. MATERIAL NECESSARY FOR EACH AIR-CRAFT / 07	Corrected typing mistake on O-ring part number.



# SERVICE BULLETIN

## AIR CONDITIONING - REPLACEMENT OF THE FLOW CONTROL SHUTOFF VALVE (FCSOV)

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### 1. PLANNING INFORMATION

#### A. SB EFFECTIVITY

Aircraft affected:

MODEL	SN
EMB-500 'Phenom 100'	50000005 thru 50000117, 50000122 thru 50000126, and 50000128.

In-production effectivity:

EMB-500 "Phenom 100" aircraft SN 50000118 thru 50000121, 50000127, 50000129 thru 50000135 and on, have an equivalent modification factory-incorporated.

#### B. CONCURRENT REQUIREMENTS

None.

#### C. REASON

##### (1) HISTORY

Instances have been reported concerning the failure of the Flow Control Shutoff Valve (FCSOV) in the closed position. Failure of the two valves (left and right) can cause the loss of the pneumatic source, and lead to loss of the cabin pressurization.

##### (2) OBJECTIVE

This bulletin presents the procedure to replace the existing FCSOV with new improved ones.



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## (3) EXPECTED BENEFITS

The new FCISOV improves the system reliability and increases its robustness.

## (4) REVISION HISTORY

Revision 01.

This revision is issued to remove the aircraft SN 50000120 and SN 50000131 from the service bulletin effectivity and add them to the in-production effectivity.

## D. DESCRIPTION

This bulletin consists in the replacement of the Flow Control Shutoff valves PN 1300230-13 and PN 1300230-23 with new improved ones PN 1300230-15 and PN 1300230-25, respectively.

To gain access to the work area, it is necessary to remove the aft baggage-compartment ceiling panel 315 ALC and 316ARC.

## E. COMPLIANCE

Embraer recommends that this bulletin be accomplished during the next scheduled maintenance check of 12 months or 600 flight hours, whichever occurs first.

## F. APPROVAL

The technical aspects of this Service Bulletin are approved by: ANAC - Agência Nacional de Aviação Civil.

This service bulletin was approved based on the airplane's original Embraer delivery configuration or as modified by other Embraer approved documents.

## G. ESTIMATED MANPOWER

This estimate is for direct labor only, performed by experienced personnel, and does not include the time to plan, prepare, or inspect the work.



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It is assumed that all the tools, parts, and other means are promptly available when necessary.

- Access opening: 0.5 man-hours.
- Modification: 2.0 man-hours.
- Access closure: 0.5 man-hours.
- Test: 1.0 man-hour.

## H. WEIGHT AND BALANCE

- Change in basic weight: None.
- Change in basic moment: None.

## I. ELECTRICAL LOAD DATA

Not changed.

## J. SOFTWARE ACCOMPLISHMENT SUMMARY

None.

## K. REFERENCES

AMM 500/( )	Aircraft Maintenance Manual PART II - 20-00-00 - STANDARD PRACTICES-AIRFRAME.
AMM 500/( )	Aircraft Maintenance Manual PART II - 21-21-01 - AIR CONDITIONING.
AMM 500/( )	Aircraft Maintenance Manual PART II - 50-31-02 - BAGGAGE AND ACCESSORY COMPARTMENTS.



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## L. PUBLICATIONS AFFECTED

AIPC 500/( )	Aircraft Illustrated Parts Catalog- Chapter 21-21-01 - Air Conditioning.
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## **2. MATERIAL INFORMATION**

### **A. MATERIAL - PRICE AND AVAILABILITY**

The Flow Control Shutoff valves necessary for the accomplishment of this bulletin should be procured from Embraer as spare parts. See [2.C. MATERIAL NECESSARY FOR EACH AIRCRAFT](#).

### **B. INDUSTRY SUPPORT INFORMATION**

#### **(1) WARRANTY COVERAGE**

##### **(a) Parts**

The SB Parts will be provided at no charge.

##### **(b) Labor**

Embraer will compensate 4.0 hours for the SB incorporation if it is performed in an Embraer authorized service center.

##### **(c) Expiration**

The terms expressed in the warranty coverage will be valid for 12 months after the SB issue date.

### **C. MATERIAL NECESSARY FOR EACH AIRCRAFT**

The expendable or consumable materials presented in the AMM Task referred to in this bulletin can be necessary for its accomplishment. Examine the operator's inventories to make sure all materials are available.

#### **(1) MATERIAL TO BE PROCURED**

##### **(a) Parts**

The parts below should be ordered as spares from Embraer.



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Material necessary for each aircraft.				
NEW PN	DESCRIPTION	OLD PN	QTY	DISP/ Notes
1300230-15	FCSOV	1300230-13	01	3
1300230-25	FCSOV	1300230-23	01	3
FF200 2-222	O-ring	FF200 2-222	04	7

DISPOSITION: 3 = Replace part bearing OLD PN with part bearing  
NEW PN

7 = Replace with part bearing same PN

**NOTE:** Send the removed FCISOV to Embraer, to the attention of the Warranty  
and Repair Department, at one of these addresses:

Embraer (USA)  
276 S.W. 34th Street  
Fort Lauderdale, FL 33315 USA  
Phone: (+1 954) 359-3700  
Facsimile: (+1 954) 359-8170

Embraer (France)  
Bât. Eddington Paris Nord 2  
33 rue des Vanesses  
BP 58294 Villepinte  
95958 Roissy CDG Cedex  
France  
Phone: (+33 1) 49 38 4400  
Facsimile: (+33 1) 49 38 4401

Embraer (Brazil)  
Avenida Brigadeiro Faria Lima, 2170, Putim  
CEP 12227-901 – São José dos Campos  
São Paulo, Brasil  
Phone: (+55 12) 3927-1000  
Facsimile: (+55 12) 3927 6600 Ext. 1448

## D. MATERIAL NECESSARY FOR EACH SPARE

None.



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## E. REIDENTIFIED PARTS

None.

## F. TOOLING - PRICE AND AVAILABILITY

None.





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## 3. ACCOMPLISHMENT INSTRUCTIONS

The steps below outline the general accomplishment instructions.

The detailed sequence is included in the respective figure, when necessary.

- A. Make sure that the aircraft is safe for maintenance ([AMM TASK 20-00-00-910-801-A/200](#) - Aircraft Maintenance Safety Procedures).
- B. Remove the ceiling panel 315 ALC and 316ARC according to [AMM TASK 50-31-02-000-801-A/400](#) - Aft Baggage-Compartment Ceiling Panel - Removal.
- C. Remove the valves PN 1300230-13 and PN 1300230-23 as given in [AMM TASK 21-21-01-000-801-A/400](#) - Flow Control Shutoff Valve (FCSOV) - Removal. Refer to Figure 1.  
**NOTE:** Send the removed FCSOV to Embraer, as per address in [2.C. MATERIAL NECESSARY FOR EACH AIRCRAFT](#).
- D. Install the new valves PN 1300230-15 and PN 1300230-25 as given in [AMM TASK 21-21-01-400-801-A/400](#) - Flow Control Shutoff Valve (FCSOV) - Installation, with its attachment parts saved during the removal procedure. Refer to Figure 1.
- E. Install the ceiling panel 315 ALC and 316ARC according to [AMM TASK 50-31-02-400-801-A/400](#) - Aft Baggage-Compartment Ceiling Panel - Installation.
- F. Restore the aircraft to normal.
- G. Enter the accomplishment of this bulletin in the applicable documents.
- H. Download and fill out the "Service Bulletin Implementation and Evaluation" form in Portable Document Format (PDF) from the Flyembraer portal (<http://www.flyembraer.com>) or fill out the attached form and send it to address below:

EMBRAER – Empresa Brasileira de Aeronáutica S.A  
Phenom Maintenance Support  
Phone: ++55 12 3927-5383  
Facsimile: ++ 55 12 3927-2619  
e-mail : [reliability.executive@embraer.com.br](mailto:reliability.executive@embraer.com.br)

User: leoparra - Printed By myTechCare - Jun 12/21 - 15:03:30





## SERVICE BULLETIN IMPLEMENTATION AND EVALUATION FORM

The purpose of this form is to collect data that will be used to improve the quality of our Service Bulletins and Reliability Program.

EMBRAER S.A.  
**Phenom Maintenance Support**  
Av. Brig. Faria Lima, 2170  
São José dos Campos - SP  
CEP: 12227-901 - PO Box: 36/2  
BRASIL  
Fax: ++ 55 12 3927-2619  
e-mail: phenom.reliability@embraer.com.br

**SB Number/Revision:**

**SB Title:**

### SB Implementation Report

*Aircraft Serial Number or Registration Number:*

*Incorporation Date:*

*Aircraft Flight Hours:*

*Aircraft Landings:*

### SB Evaluation *(Check applicable boxes below and use the space as required to provide any additional information)*

*Estimated Manpower:*

☐ OK

☐ NOT OK

*Material & Kits:*

☐ OK

☐ NOT OK

*Accomplishment Instructions:*

☐ OK

☐ NOT OK

*Figures:*

☐ OK

☐ NOT OK

*SB General Evaluation:*

☐ OK

☐ NOT OK

**Comments:***(Bulletin quality, difficulties found at the time of incorporation, suggested improvements, other)*

*Company/ Service Center:*

*E-mail:*

*Phone:*

*Address:*

*Form filled by:*

*Work Order:*

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