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**AIR CONDITIONING - OZONE CONVERTER -
UPGRADE TO OZONE-VOLATILE ORGANIC
COMPOUND CONVERTER**

VSF Ref: 20499-21-001

FINAL ISSUE: 00

Release Date: 26 Aug 2022

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The technical content of this document is approved under the authority of the Design Organization Approval (DOA) ref. EASA.21J.031

Summary

The BASF MRO Service process, Upcore™, upgrades an existing BASF ozone converter, P/N 20499006, to a BASF ozone-VOC (Volatile Organic Compound) converter, P/N 44018005, by replacement of its existing OEM ozone catalyst core with a BASF OEM factory-new ozone-VOC catalyst core.

An upcored converter will be reassigned P/N 44018005 and a unique commercial production serial number aligned with P/N 44018005 for traceability. This information will be stated on a replacement nameplate, which also uniquely identifies the converter as having been upcored. The upcored converter will be subject to, and satisfy, all design and performance conditions governing a BASF OEM ozone-VOC converter, P/N 44018005.

To be eligible for Upcore™, an ozone converter will have retained its OEM structural integrity and OEM ozone catalyst core. An ozone converter previously recored or upcored (i.e. catalyst core replacement with same, similar, or upgraded catalyst core technology) is not eligible for Upcore™.

Upcore™ may be performed at the next scheduled maintenance interval for the existing ozone converter.

1 Planning Information

A Effectivity

BASF ozone converters, P/N 20499006 that have maintained their OEM structural integrity (i.e., never been recored) are eligible for conversion into ozone-VOC converters, P/N 44018005.



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B Concurrent Requirements

None.

C Reason

BASF has determined by test that its ozone converter, P/N 20499006, offers minimal co-benefit capabilities to mitigate odorous compounds entering the A320 platform aircraft cabin through the engine bleed air stream.

BASF ozone-VOC converter, P/N 44018005, offers both ozone conversion and mitigation of certain VOCs present in the engine bleed air stream that are associated with cabin odor issues and/or fume events.

D Description

The only difference between the BASF P/N 20499006 ozone converters and their corresponding BASF P/N 44018005 ozone-VOC converters is the catalyst technology coated on the catalyst core. Upcore™ replaces the catalyst core of an ozone converter with an OEM factory new ozone-VOC catalyst core. Thus, a 20499006 unit yields a 44018005 unit, and the resulting product is subject to, and satisfies, all the design and performance conditions of an OEM ozone-VOC converter. The upcored ozone-VOC converter receives a commercial production serial number aligned with the 44018005 converter for traceability and is uniquely identifiable by its nameplate.

E Compliance

Compliance with this Service Bulletin is desirable. Upcore™ may be performed at the next suitable maintenance interval for the existing ozone converter(s).



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F Approval

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G Manpower

The minimum manhours necessary for the aircraft operator to accomplish this Vendor Service Bulletin are those required for removal and inspection of the ozone converter, P/N 20499006, packaging and shipment of the converter to BASF Corporation, and reinstallation of the returned upcored, ozone-VOC converter, P/N 44018005.

A nominal breakdown of total manpower required by all parties to accomplish this Vendor Service Bulletin is given in the following table. Packaging and shipment time accrued by the aircraft operator is not considered.

BASF MRO Service process Upcore™	
Aircraft Operator	
Removal and inspection of ozone converter, P/N 20499006	0.3 hr
BASF Corporation	
Receipt and inspection of ozone converter, P/N 20499006	24 hr
Upcore™ Deconstruction of ozone converter, P/N 20499006 Catalyst core replacement with OEM factory-new ozone-VOC catalyst core Reconstruction of upcored, ozone-VOC converter, P/N 44018005	96 hr
Acceptance Test and QC final inspection of upcored, ozone-VOC converter, P/N 44018005	48 hr
Return shipment with allowance for weekend transmittal	72 hr
Aircraft Operator	
Reinstallation of upcored, ozone-VOC converter, P/N 44018005	0.3 hr
Grand Total	240.6 hr



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H Weight and Balance

The upgrade from an OEM ozone catalyst core to an OEM ozone-VOC catalyst core yields an increase in total converter weight of approximately +0.7 lbs. (+0.32 kg).

There is no effect on balance.

I Electrical Load Data

Not changed.

J Software Accomplishment Summary

Not applicable.

K References

BASF Abbreviated Component Maintenance Manual 21-11-04 for ozone converter P/N 20499006.

BASF Abbreviated Component Maintenance Manual 21-11-15 for ozone-VOC converter P/N 44018005.

BASF Equipment Definition Evolution Sheet EDES0122 Issue 02

This Service Bulletin is subject to aircraft modification N° 39985 K12920 (classified minor).

L Publications Affected

BASF Abbreviated Component Maintenance Manual 21-11-04 for ozone converter P/N 20499006.

BASF Abbreviated Component Maintenance Manual 21-11-15 for ozone-VOC converter P/N 44018005.



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M Interchangeability

Refer to aircraft IPC.

2 Material Information

A Material – Price and Availability

No material on the part of the aircraft operator is required other than submission of the original ozone converter(s). BASF handles the removal and proper disposal of the existing ozone converter catalyst core and provides the airline operator a scrap certificate upon completion. The MSRP for the Upcore™ unit is US\$12,750 for a fixed term of 36 months from the effective date of this Vendor Service Bulletin.

B Industry Support Information

Additional support information on BASF MRO Service process Upcore™ is available through a BASF authorized Global MRO Channel Partner, to whom all MRO servicing and logistics inquiries should also be directed.

BASF MRO Service may be contacted directly via e-mail at the address:
aircraft.cleanair@basf.com.

C List of Components

(1) Materials to be Purchased

None.



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(2) Materials Supplied by the Operator

Old P/N	New P/N	Interchangeability	Cost	Disposal/Rework
20499006	44018005	Two-way	\$12750	Return to BASF Huntsville, AL

D Subcomponents to be Reidentified

None.

E Tooling

None. The Upcore™ process is performed exclusively at the BASF manufacturing site in Huntsville, AL, and thus no special tooling on the part of the aircraft operator is required.

F Special Tools

None. The Upcore™ process is performed exclusively at the BASF manufacturing site in Huntsville, AL, and thus no special tooling on the part of the aircraft operator is required.

3 Accomplishment Instructions

A General

At the next suitable maintenance period, an eligible BASF ozone converter, P/N 20499006, deemed by inspection to be eligible for the BASF MRO Service process Upcore™ may be removed from service and submitted by the A320 platform aircraft



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operator to BASF Corporation through a BASF authorized Global MRO Channel Partner, to whom all MRO servicing and logistics inquiries also should be directed, to undergo the Upcore™ process.

The BASF ozone converter, P/N 20499006, is a single, indivisible part of all-welded unitary construction. It does not contain defined component parts, sub-parts, and/or sub-assemblies that exist independently of the converter. The converter is not serviceable in the field. The requisite tools, processes, skills, and expertise required to perform Upcore™ – deconstruction of the ozone converter, P/N 20499006, and replacement of the OEM ozone catalyst core with an OEM factory-new, ozone-VOC catalyst core in a manner that retains the airworthiness properties of the upcored, ozone-VOC converter, P/N 44018005, upon reconstruction – are exclusive to BASF Corporation.

An overview of the BASF MRO Service process Upcore™ is presented in the following graphic and explained in greater detail in the subsequent description.



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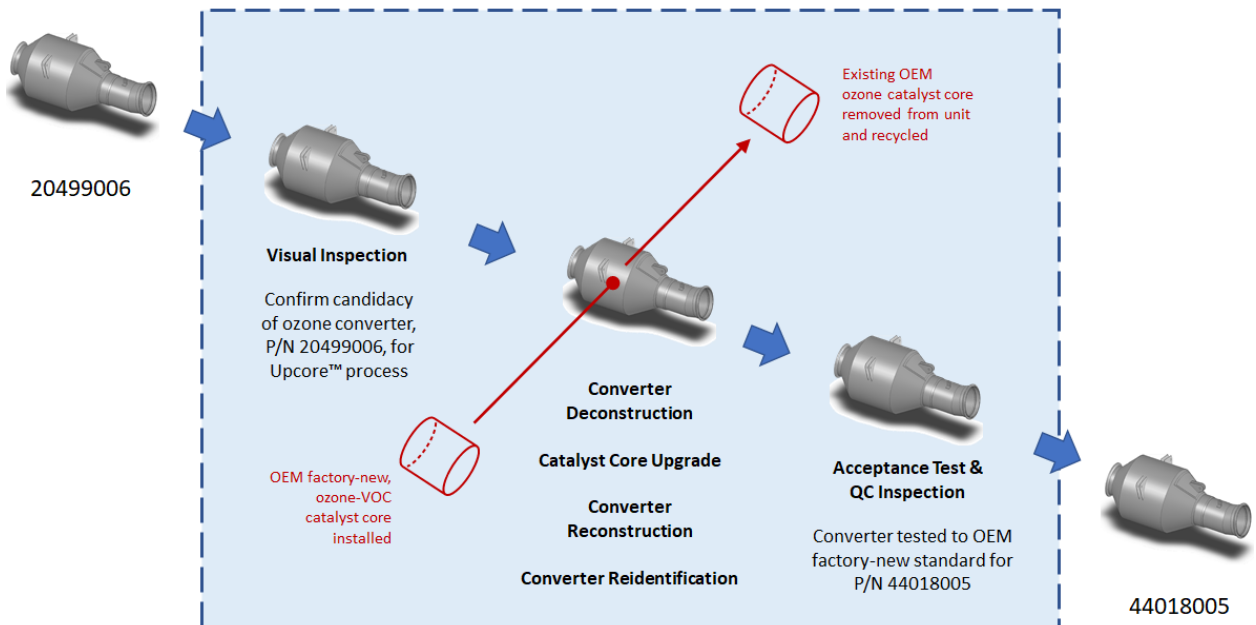
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BASF MRO SERVICE PROCESS UPCORE™





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i. Initial Assessment

The ozone converter, P/N 20499006, will be inspected in accordance with the process defined and controlled by BASF Document: *SOP-0178* Section 5.1: *Incoming Inspection*. Any damage will be recorded on BASF Form 0492, *Ozone Converter Teardown Report*.

Ozone converters that have successfully passed visual inspection, including inspection of the catalyst core, are confirmed as eligible for BASF MRO Service process Upcore™ and proceed to deconstruction.

ii. Deconstruction

The ozone converter, P/N 20499006, will be deconstructed to enable access to the catalyst core within the converter housing in accordance with the process defined and controlled by BASF Document: *WI-2296*.

iii. Catalyst Core Upgrade

The OEM ozone catalyst core will be replaced by a BASF OEM factory-new ozone-VOC catalyst core in accordance with the process defined and controlled by BASF Document: *SOP-0166*.

iv. Reconstruction

The upcored, ozone-VOC converter, P/N 44018005, will be reconstructed into a single, indivisible part of all-welded unitary construction in accordance with the process defined and controlled by BASF Document: *WI-2296*.

v. Item Traceability

The upcored, ozone-VOC converter, P/N 44018005, will have its original nameplate, designating ozone converter P/N 20499006, removed and scrapped. A scrap certificate will be issued to the A320 platform aircraft operator documenting the nameplate destruction for the associated part number/serial number of the ozone converter.



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A new, uniquely identifying nameplate will be mounted on the converter housing designating P/N 44018005 and a unique commercial production serial number aligned with P/N 44018005 for traceability. The nameplate will also identify the BASF Corporation Ozone Converter Repair Station (Part 145 Repair Station certificate holder) in Huntsville, AL and designate the converter in text as “Upcore Ozone/VOC Converter”, with identification of the A320 aircraft, governing remanufacture drawing, and date of servicing.

The nameplate will be defined and controlled in accordance with BASF Document: *C-48241* and replaced in accordance with the process defined and controlled by BASF Document: *WI-2296*.

vi. Acceptance and Inspection

The upcored, ozone-VOC converter, P/N 44018005, will be defined and controlled by BASF Document: *C-48241*.

The upcored, ozone-VOC converter, P/N 44018005, will be examined by and pass the Acceptance Test for an OEM, factory-new ozone-VOC converter, P/N 44018005, in accordance with the process defined and controlled by BASF Document: *SOP-0383*.

A QC final inspection of the upcored, ozone-VOC converter, P/N 44018005, will be performed prior to return shipment in accordance with the process defined and controlled by BASF Document: *SOP-0373*, Section 5 sub-section: *Final Inspection*.

B Preparation

The converter cannot undergo the Upcore™ process in the field. It must be returned to BASF in order to undergo the Upcore™ process.



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C Procedure

The converter will be returned to BASF to undergo the Upcore™ process described in this bulletin. BASF will remove and properly dispose of the existing ozone converter catalyst core and provide the airline operator a scrap certificate along with the Upcored unit.

D Reidentification of Equipment

Upon completion of the Upcore™ process, P/N 20499006 will be reidentified as P/N 44018005. A unique commercial production serial number will be assigned to the upcored ozone-VOC converter as reflected on a unique identifying nameplate.

E Test

Upon completion of the Upcore™ process, the converters will match the physical characteristics of P/N 44018005.

F Close-up

The upcored, ozone-VOC converter, P/N 44018005, is physically interchangeable with an OEM factory-new, ozone-VOC converter, P/N 44018005, and an OEM factory-new, ozone converter, P/N 20499006.

Family Tree Chart

There is no equipment history with associated VSBs.