



# ***BRACKETT AERO FILTERS, INC.***



## **INSTRUCTIONS**

ASSEMBLY PART NO BA-101  
(6486197)

APPROVED ON AIRCRAFT MODELS: SEE FAA APPROVED APPLICABILITY LIST

REPLACES: Air Maze P.N. 120009, 120009A, 124748-035

FAA APPROVAL DATA: STC-SA693CE List No. 1  
FAA-PMA Supplement No. 1

Your new polyurethane air filter element has been designed to provide maximum dust collecting efficiency, non-restrictive air flow, and economical element replacement, while maintaining a lightweight filter. The element has been treated with a distinctive treatment called a wetted agent and is approximately 98% efficient. The wetted agent is an accompaniment in the efficient capturing of dust. In addition, the element has received a fire retardant treatment. For the above reasons, replace the element each 100 hours of use, 12 months or when 50% covered with foreign material. DO NOT WASH AND REUSE.

## **INSTALLATION INSTRUCTIONS**

- STEP 1: Remove existing filter and gasket from carburetor heat box and discard.
- STEP 2: Inspect heat box for condition making sure valve shaft and busing is not worn. If un-airworthy, repair with kit or replace worn carburetor heat box.
- NOTE: If your airlock fasteners are in good condition, install filter frame in the same manner as the original filter was installed and proceed to Step #5.
- NOTE: If your airlock fasteners are worn and do not hold properly remove airlock pins from new filter frame and proceed with Step #3, using screw attach kit which is provided.
- STEP 3: Snip or file off cam lock stops. These may be worn or broken off already.
- STEP 4: Attach filter frame to carburetor heat box with 4 each screws, nuts and washers (furnished). Torque each nut to where the neoprene gasket is compressed to 1/2 of its original thickness.
- STEP 5: Install filter element, PN BA-8, into frame, making sure that contact is being made on all sides.
- STEP 6: Install grill with the 4 ea. AN526-832R6 screws with lock washers.
- STEP 7: NOTE: After initial installation of filter assembly fill out FAA Form 337 for return to service. On future replacement of parts, this form will not be required.

SERVICING: Under normal conditions, replace filter element, PN BA-8, after 100 hours use or year intervals. Under severely dusty conditions, check daily and replace when element is 50% covered with foreign material. For Continued Airworthiness Instructions, see Form I-194.

Instruction Sheet  
Part No. BA-1105  
Date Rev: 04-06-04

Mfg. by:  
BRACKETT AERO FILTERS, INC.  
Kingman, AZ

# Supplemental Type Certificate

*Number* SA693CE

*This Certificate issued to* Brackett Aero Filters, Inc.  
7052 Government Way  
Kingman, Arizona 86401

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part Specified under : "Certification Basis" on the applicable Data Sheets or Aircraft Specifications Regulations.*

*Original Product Type Certificate Number :* As shown on Approved Model List(s)

*Make :* " "

*Model :* " "

Note: FAA - Approved Model List(s) form a part of this Certificate.

*Description of Type Design Change:* Replace existing engine induction air filter with AC Spark Plug Division filter in accordance with Approved AC Filter List(s).

*Limitations and Conditions:* This approval should not be extended to other specific airplanes of these models on which other previously approved modifications are incorporated unless it is determined that the interrelationship between this change and any of those other previously approved modifications will introduce no adverse effect upon the airworthiness of the airplanes. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

*This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.*

*Date of application :* March 2, 1970

*Date reissued :* February 22, 1978, March 3, 1983, June 20, 2000

*Date of issuance :* March 26, 1970

*Date amended :*



*By direction of the Administrator*

*Michael A. Murphy*  
(Signature)

Manager, Tech. and Admin. Support Staff  
Los Angeles Aircraft Certification Office

*Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.*

**SA693CE  
BRACKETT AERO FILTERS, INC.  
FOR INSTALLING AIR FILTERS**

**ISSUE DATE: MARCH 26, 1970**

ITEM	AIR FILTER MODEL NUMBER	TOP DRAWING		AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERT. NUMBER	CERT. BASIS	AML AMENDMENT
		NUMBER	REVISION & DATE					
1	BA-100	100-BA-100 (6484696)	C 3/29/84	RAYTHEON (BEECH)	E50(L-23D, RL-23D; F50; G50; H50; J50	5A4		11/7/00
				RAYTHEON (BEECH)	A65; 70; 65-B80; 65-88	3A20		
				PIPER	PA-31; PA-31-300; PA-31-350	A20S0		
2	BA-101	BA-101 (6486197)	E 9/23/85	PIPER	PA-32RT-300T	A3S0		
				CESSNA	175; 175A; 175B; 175C	3A17		
				CHAPARRAL MOTORS (GREAT LAKES)	2T-1A-2	A18EA		
3	BA-104	BA-104 (6485710)	D 10/17/85	AIRCRAFT PARTS & DEV. (AERO COMMANDER) (INTERMOUNTAIN) (CALLAIR)	A-9; A9B	A-758		
				AIRCRAFT PARTS & DEV. (AERO COMMANDER) (INTERMOUNTAIN AIR) (CALLAIR)	A-9A	A4WE		
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# BRACKETT AIR FILTER DOCUMENT I-194

PLACE IN AIRCRAFT RECORDS

CONTINUED AIRWORTHINESS INSPECTION  
 REQUIREMENTS AS PER FAR 23.1529  
 AND GENERAL PROCEDURES OF PART 43

**INSPECTION INTERVALS:** Pre-flight inspections, engine backfire inspection, 100 hour inspections, annual inspections, filter element replacements.

## INSPECTION PROCEDURES

- A. Pre-flight inspection: Per Pilots Operating Handbook, check filter assembly for security, damage or 50% contamination of element face. If found report to maintenance personnel prior to flight.
- B. Engine start-up backfire inspection: Prior to flight, check the entire intake system for security or damage. If a fire was present, the downstream face of the foam element will show erosion. If any irregularities are found see Chart I and also refer to the Aircraft Maintenance Manual for the intake system.
- C. At element replacement intervals: With the element removed, inspect the filter grill, filter frame, filter mountings and entire intake system for security, wear and any deformation. Note: On filter assemblies with gaskets, visually inspect inside and outside of frame for any signs of gasket looseness, movement or deterioration. If found refer to Chart I or the proper maintenance manual for your aircraft or component.

PART			INSTRUCTIONS
	REPLACE	REWORK	
FRAME	X		COMPLETE NEW ASSEMBLY
GASKET	X		ON FILTER FRAME, REMOVE OLD NEOPRENE GASKET AND ALL TRACES OF ADHESIVE DOWN TO A CLEAN ANODIZED FRAME SURFACE. USE ADHESIVE 3M#847 OR DOW CORNING RTV-732. COAT ENTIRE MATING SURFACE (GASKET TO FRAME). APPLY ADHESIVE FOLLOWING MANUFACTURER'S LABEL DIRECTIONS. WHEN FRAME AND GASKET ARE PLACED TOGETHER, CLAMP OR WEIGHT DOWN AT .75 LB./SQ. IN. OF CONTACT AREA. ALLOW TO CURE 24 HOURS PRIOR TO INSTALLATION. PRIOR TO REINSTALLATION OF FILTER, CHECK AIRBOX MATING SURFACE FOR IRREGULARITIES. IF FOUND, CORRECT PER MANUFACTURER'S REQUIREMENTS. UPON REINSTALLATION CHECK THAT THE GASKET MAKES 100% CONTACT. THE GASKET SHOULD BE COMPRESSED 50% FOR OPTIMUM SEAL.
GRILL	X		REPLACE WITH NEW GRILL
HARDWARE	X		REPLACE UNSERVICEABLE WITH NEW
SCREEN	X		COMPLETE NEW ASSEMBLY
SCREEN/GASKET	X		COMPLETE NEW ASSEMBLY ( ASSEMBLIES USING SCREEN GASKETS PRE 1981; BA-4106, BA-5110 AND BA-8110. )
ELEMENT	X		REPLACE ELEMENT