



McFarlane Aviation Products

Instructions for Continued Airworthiness
McFarlane Aviation, Inc. FAA-PMA Cessna Baffle Seals
FAA PMA Number: PQ3732CE

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Approved By:


Quality Assurance Manager


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Revisions

Revision	Date	Summary
Original	12/07/2020	Original release
A	04/15/2021	Revised introduction, Separated 150-150C into separate models. Added BSC-KT-6 &-7, Formatted table headings
B	04/22/2021	Added General Installation Instructions, Added Special Installation Instructions for 172R & 172S, changed page reference

List of Effective Pages

Page	Revision	Date
ALL	~	12/07/2020
1-8, 11, 13	A	04/15/2021
1, 10-15	B	04/22/2021

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Introduction

This document is intended to provide for the continued airworthiness of McFarlane Aviation, Inc. PMA baffle seals for use on Cessna aircraft. The aircraft use is differentiated by the kits that contain all of the baffle seals used on that aircraft. The table below details the kit number used and its eligible aircraft.

Kit Number	Aircraft Eligibility	Serial Number Range
BSC-KT-1	172R, 172S	17280001 through 17299999 172S8001 through 172S9999
BSC-KT-2	150, 150A, 150B, 150C	17001 through 59018 except 18000-59000
BSC-KT-3	150D, 150E, 150F, 150G, 150H, 150J, 150K	15060088 through 15072003 except 15064970
BSC-KT-4	150L, 150M	15072004 through 15079405
BSC-KT-5	152	15279406 through 15283591
BSC-KT-6	152	152083592 through 15085066
BSC-KT-7	152	152085067 through 15286033

SPECIAL OPERATING INFORMATION

The control and operation of the baffles does not change with the installation of any of the baffle seals; see applicable Cessna Aircraft Service Manual for the operational control of this system.

PART REMOVAL, REPLACEMENT, AND SERVICE INFORMATION

The following sections detail the specific installation instructions and kits associated with Cessna Models 150, 150A, 150B, 150C, 150D, 150E, 150F, 150G, 150H, 150J, 150K, 150L, 150M, 152, and 172 series aircraft. Please see applicable section for your specific aircraft for service information.

TROUBLESHOOTING

None Applicable

PLACARDS

None Applicable

DATA

None Applicable

INSPECTION

No additional inspections exist with the use of these parts.

RECOMMENDED OVERHAUL PERIODS

None

AIRWORTHINESS LIMITATIONS

The Airworthiness Limitations section is FAA approved and specifies maintenance required under Sec. 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved. No additional airworthiness limitations exist.

ASSISTANCE & REVISIONS

ICA revisions shall be made available on the McFarlane website, www.mcfarlaneaviation.com/ICA. For questions or assistance regarding these Instructions for Continued Airworthiness (ICA), contact McFarlane Aviation, Inc via email or phone.

Email: engineering@mcfarlaneaviation.com

Phone: 1-800-544-8594 (within the US) or 1-785-594-2741.

Cessna Models 172R & 172S

Parts Overview

BSC-KT-1

Aircraft Models	Serial Numbers
172R	17280001 – 17299999
172S	172S8001 – 172S9999

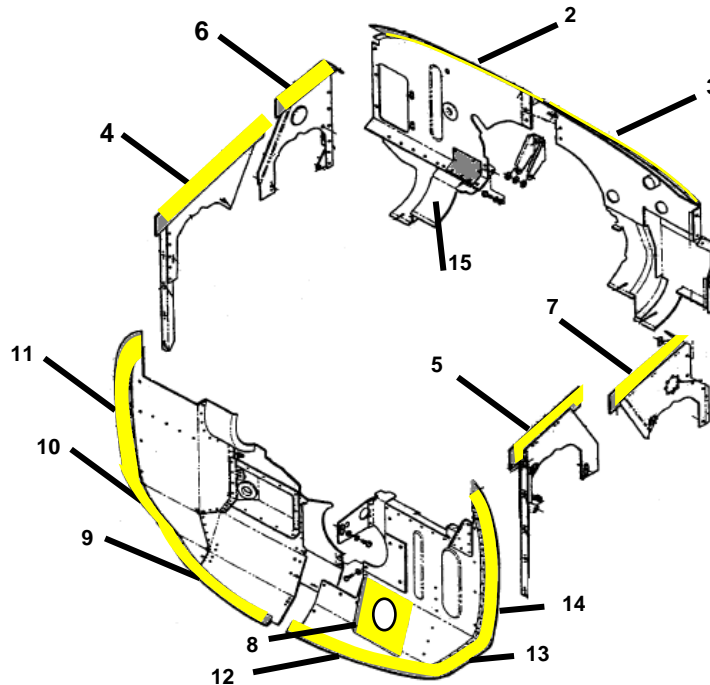


Figure 1: Cessna 172 Baffle Seals

BSC-KT-1			
Cessna Models 172R & 172S Baffle Seal Kit Parts List			
Item Number	Part Number	Part Description	Quantity in Kit
1	6036-012	Retainer Strip	14
2	MC0509069-4	RT AFT Seal	1
3	MC0509070-4	LT AFT Seal	1
4	MC0509071-2	CYL 1 RT FWD Seal	1
5	MC0509072-4	CYL 2 LT FWD Seal	1
6	MC0509073-6	CYL 3 RT AFT Seal	1
7	MC0509074-2	CYL 4 LT AFT Seal	1
8	MC0509079-2	Heat Muff Air Intake Seal	1
9	MC0555250-17	FWD RT LWR Seal	1
10	MC0555250-18	FWD RT MID Seal	1
11	MC0555250-19	FWD RT UPR Seal	1
12	MC0555259-25	FWD LT LWR Seal	1
13	MC0555259-26	FWD LT MID Seal	1
14	MC0555259-27	FWD LT UPR Seal	1
15	MC2455076-1	RT AFT SUB Seal	1
16	MS20470A-4-5	Soft Rivet	100

Cessna Models 150 through 150C Parts Overview BSC-KT-2

Aircraft Models	Serial Numbers
150	617, 17001-17999, 59001-59018
150A – 150C	15059019-15060087

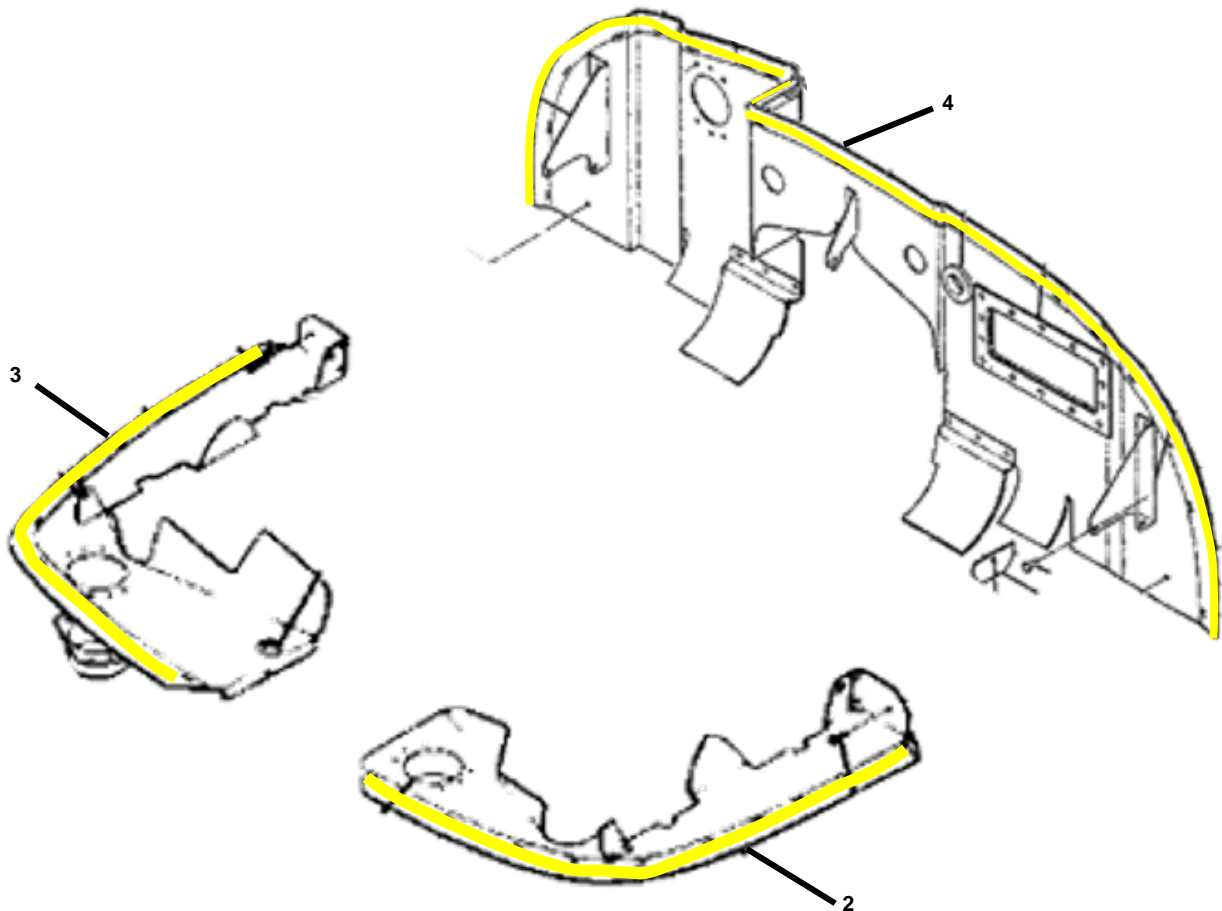


Figure 2: Cessna Models 150 through 150C Baffle Seals

BSC-KT-2 Cessna Models 150 through 150C Baffle Seal Kit Parts List			
Item Number	Part Number	Part Description	Quantity in Kit
1	6036-012	Retainer Strip	6
2	MC0450502-12	Seal, Baffle, Left Cylinder	1
3	MC0450502-13	Seal, Baffle, Right Cylinder	1
4	MC0450502-6	SEAL, BAFFLE, Rear Assembly	1
5	MS20470A4-5	Soft Rivet	100

Cessna Models 150D through 150K Parts Overview BSC-KT-3

Aircraft Models	Serial Numbers
150D – 150K	15060088 – 15702003
F150F – F150K	F150-0001 – F15000658
A150K	A1500001 – A1500226
FA150K	FA1500001 – FA1500081

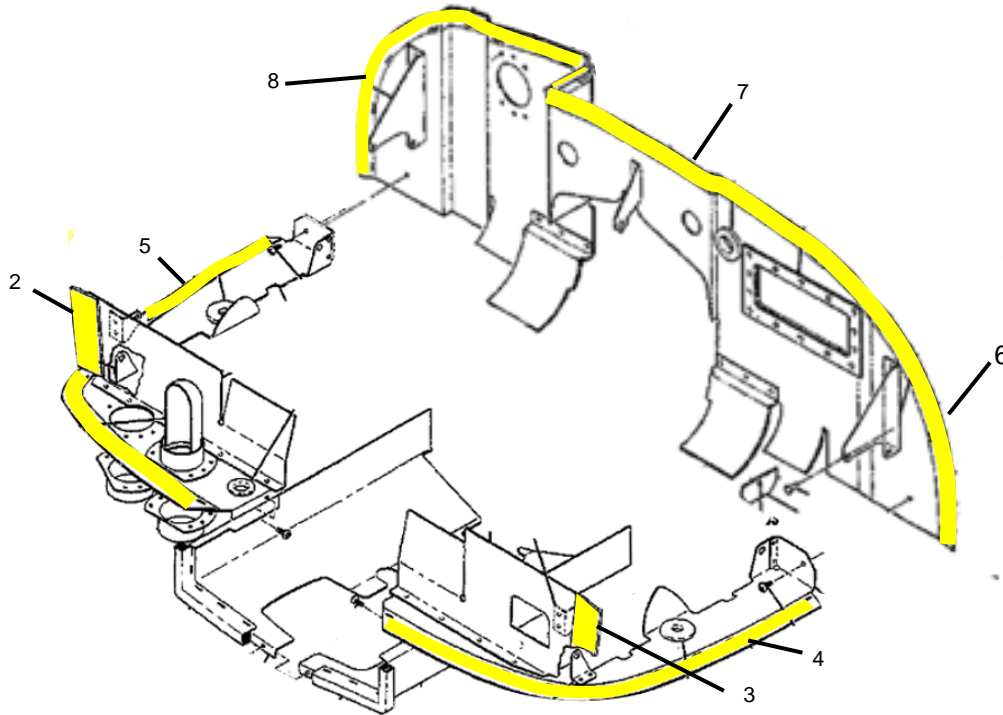


Figure 3: Cessna Model 150D through 150K Baffle Seals

BSC-KT-3 Cessna Models 150D through 150K Baffle Seal Kit Parts List			
Item Number	Part Number	Part Description	Quantity in Kit
1	6036-012	Retainer Strip	7
2	MC0450302-4	Seal, Baffle, Vertical	1
3	MC0450303-3	Seal, Baffle, Vertical	1
4	MC0450502-12	Seal, Baffle, Left Cylinder	1
5	MC0450502-13	Seal, Baffle, Right Cylinder	1
6	MC0450502-28	Seal, Baffle, Rear Left	1
7	MC0450502-29	Seal, Baffle, Rear Center ASSY	1
8	MC0450502-30	Seal, Baffle, Rear Right	1
9	MS20470A4-5	Soft Rivet	100

Cessna Models 150L through 150M

Parts Overview

BSC-KT-4

Aircraft Models	Serial Numbers
150L – 150M	15072004 – 1579405
F150L – F150M	F15000659 – F15001428
A150L – A150M	A1500227 – A1500734
FA150L – A150M	FA1500082 – FA1500336

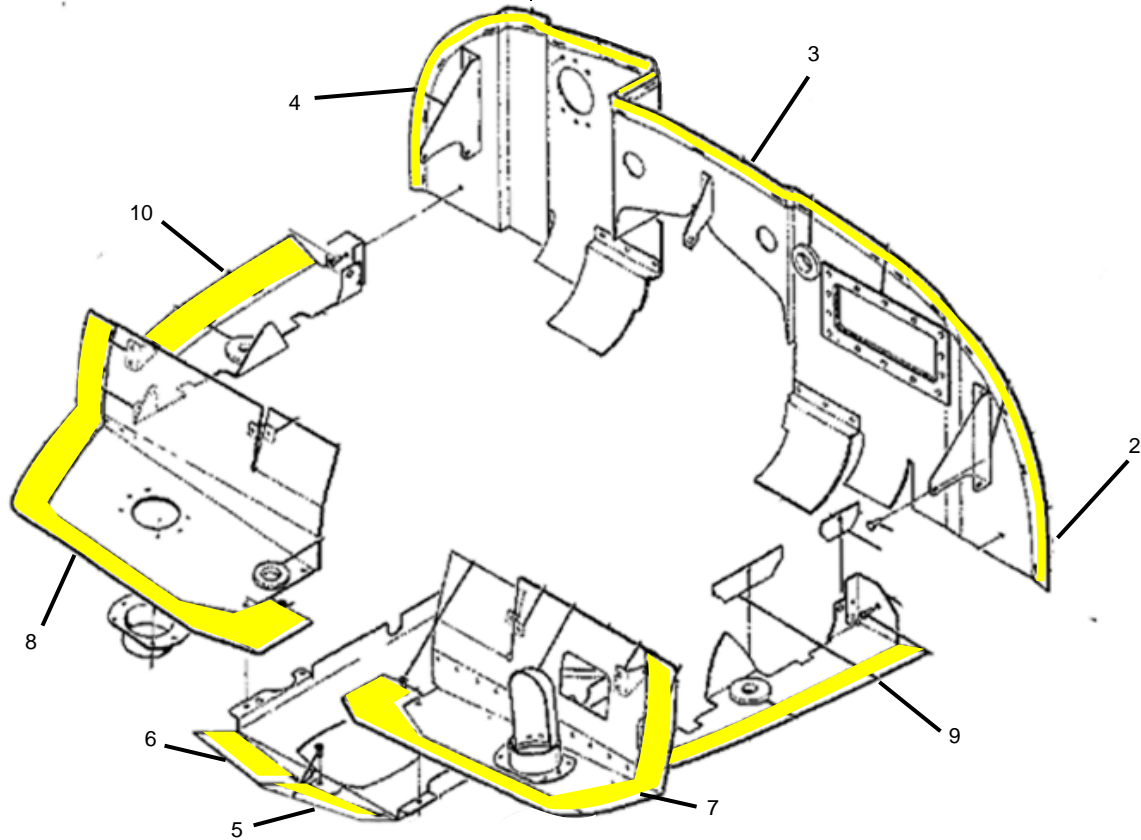


Figure 4: Cessna Models 150L & 150M Baffle Seals

BSC-KT-4			
Cessna Models 150L & 150M Baffle Seal Kit Parts List			
Item Number	Part Number	Part Description	Quantity in Kit
1	6036-012	Retainer Strip	14
2	MC0450502-28	Seal, Baffle, Rear Left	1
3	MC0450502-29	Seal, Baffle, Rear Center ASSY	1
4	MC0450502-30	Seal, Baffle, Rear Right	1
5	MC0455000-13	Seal, Baffle, Lower Left	1
6	MC0455000-6	Seal, Baffle, Lower Right	1
7	MC0455000-7	Seal, Baffle, Front Left	1
8	MC0455001-10	Seal, Baffle, Front Right	1
9	MC0455001-7	SEAL, BAFFLE, Left Cylinder	1
10	MC0455001-8	SEAL, BAFFLE, Right Cylinder	1
11	MS20470A4-5	Soft Rivet	100

Cessna Model 152 Parts Overview BSC-KT-5

Aircraft Models	Serial Numbers
152	15279406 – 15283591
F152	F15201429 – F15201673
A152	A1520735 – A1520878
FA152	FA1520337 – FA1520357

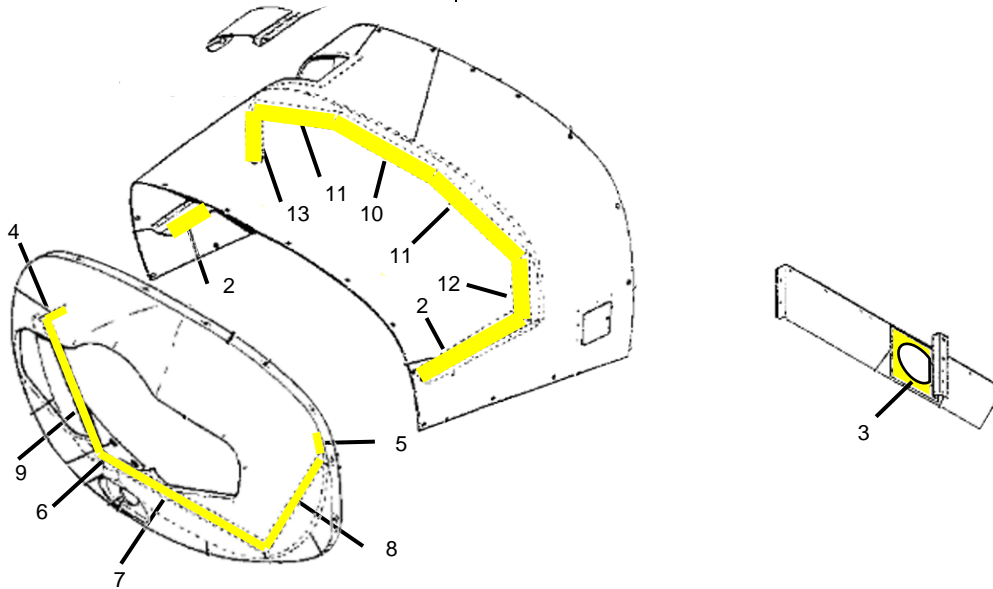


Figure 5: Cessna 152 Baffle Seals

BSC-KT-5 Cessna Model 152 Baffle Seal Kit Parts List			
Item Number	Part Number	Part Description	Quantity in Kit
1	6036-012	Retainer Strip	14
2	MC0452220-5	Seal, Baffle, Lower Cowl	2
3	MC0455018-20	Seal, Baffle	1
4	MC0455024-11	Seal, Baffle, Upper Right	1
5	MC0455024-14	Seal, Baffle, Upper Left	1
6	MC0455024-18	Seal, Baffle, Lower Right	1
7	MC0455024-5	Seal, Baffle, Forward Center	1
8	MC0455024-6	Seal, Baffle, Forward Left	1
9	MC0455024-8	Seal, Baffle, Forward Right	1
10	MC0455026-3	Seal, Baffle, Middle Cowl	1
11	MC0455026-4	Seal Baffle, Inner Cowl	2
12	MC0455026-5L	Seal, Baffle, Vertical Cowl, Left	1
13	MC0455026-5R	Seal, Baffle, Vertical Cowl, Right	1
14	MS20470A4-5	Soft Rivet	100

Cessna Model 152 Parts Overview BSC-KT-6

Aircraft Models	Serial Numbers
152	152083592 – 152085066
F152	F15201674 – F15201928
A152	A1520879 – A1520974
FA152	FA1520358 – FA1520382

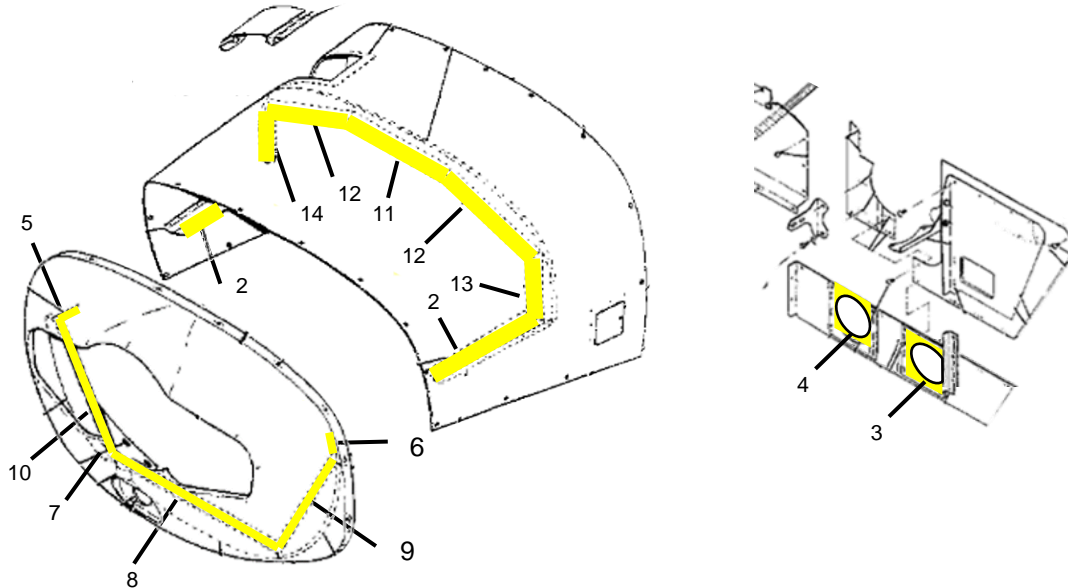


Figure 6: Cessna 152 Baffle Seals

BSC-KT-6 Cessna Model 152 Baffle Seal Kit Parts List			
Item Number	Part Number	Part Description	Quantity in Kit
1	6036-012	Retainer Strip	19
2	MC0452220-5	Seal, Baffle, Lower Cowl	2
3	MC0455018-20	Seal, Baffle	1
4	MC0455018-28	Seal, Heat Muffler	1
5	MC0455024-11	Seal, Baffle, Upper Right	1
6	MC0455024-14	Seal, Baffle, Upper Left	1
7	MC0455024-18	Seal, Baffle, Lower Right	1
8	MC0455024-5	Seal, Baffle, Forward Center	1
9	MC0455024-6	Seal, Baffle, Forward Left	1
10	MC0455024-8	Seal, Baffle, Forward Right	1
11	MC0455026-3	Seal, Baffle, Middle Cowl	1
12	MC0455026-4	Seal Baffle, Inner Cowl	2
13	MC0455026-5L	Seal, Baffle, Vertical Cowl, Left	1
14	MC0455026-5R	Seal, Baffle, Vertical Cowl, Right	1
15	MS20470A4-5	Soft Rivet	100

Cessna Model 152 Parts Overview BSC-KT-7

Aircraft Models	Serial Numbers
152	152085067 – 15286033
F152	F15201929 – F15201980
A152	A1520975 – A1521049
FA152	FA1520383 – FA1520425

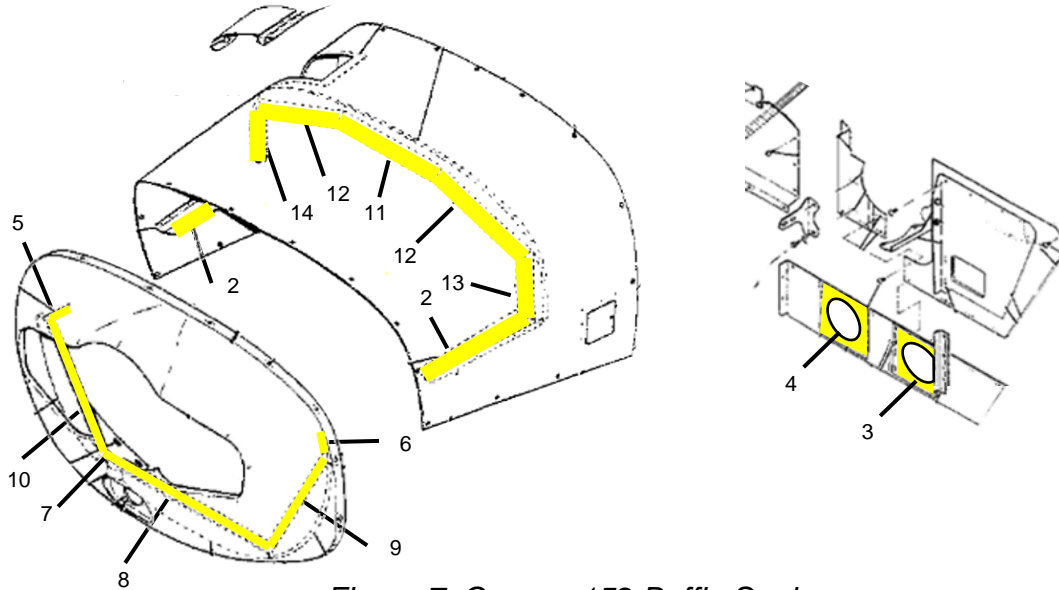


Figure 7: Cessna 152 Baffle Seals

BSC-KT-7			
Cessna Model 152 Baffle Seal Kit Parts List			
Item Number	Part Number	Part Description	Quantity in Kit
1	6036-012	Retainer Strip	14
2	MC0452220-5	Seal, Baffle, Lower Cowl	2
3	MC0455018-20	Seal, Baffle	1
4	MC0455018-28	Seal, Heat, Muffler	1
5	MC0455024-11	Seal, Baffle, Upper Right	1
6	MC0455024-14	Seal, Baffle, Upper Left	1
7	MC0455024-18	Seal, Baffle, Lower Right	1
8	MC0455024-25	Seal, Baffle, Forward Center	1
9	MC0455024-6	Seal, Baffle, Forward Left	1
10	MC0455024-8	Seal, Baffle, Forward Right	1
11	MC0455026-3	Seal, Baffle, Middle Cowl	1
12	MC0455026-4	Seal Baffle, Inner Cowl	2
13	MC0455026-5L	Seal, Baffle, Vertical Cowl, Left	1
14	MC0455026-5R	Seal, Baffle, Vertical Cowl, Right	1
15	MS20470A4-5	Soft Rivet	100

General Installation Instructions

The following installation instructions apply to all McFarlane Aviation Inc. pre-cut engine baffle seals for Cessna aircraft models, using McFarlane Part Number 6036 baffle seal retainer strips.

1. Remove the original engine baffle seals to be replaced by cutting or grinding off the fasteners.
2. Cut the McFarlane Part Number 6036 baffle seal retainer strips to the length of each baffle that is to receive a replacement seal. The retainer strips should remain in approximately in the same position as the original seal fasteners.

Note: Due to baffle curvature, it may be necessary to use multiple, smaller, lengths of baffle seal retainer strips.

3. Using the baffle as a template, drill a #30 (0.128") diameter hole at each staple (or other equivalent installation hardware) location through the baffle. If a staple has been used, drill the hole using only one of the two staple holes from each staple location.
4. Clamp the baffle seals in their final installation position. Mark the baffle seal holes using the drilled baffle holes as a template. Remove the seal and punch out the marked holes with a leather punch or equivalent hole tool.

Note: It is very important that the low friction side of the seal be installed facing the cowling. The black side is the low friction side

5. Clamp the retainer strips in their final installation position. Mark the retainer strip holes using the drilled baffle holes as a template. Remove the retainer strips and drill a #30 (0.128") diameter hole at each mark.
6. Clamp the baffle seal and retainer strip back into their final installation position. Drive the included MS20470A-4-5 rivets using standard methods.
7. After Installation is complete, re-install the engine cowling and verify that a good seal is present between the baffle seals and the cowling.

Special Installation Instructions

Cessna 150 through Cessna 150C

For installation of MC0450502-6

McFarlane P/Ns MC0450502-28, MC0450502-29-1, MC0450502-29-2, and MC0450502-29-30 are replacements for Cessna P/N 0450502-6. The Cessna part was originally a single seal that spanned the entire rear vertical baffle. McFarlane separated this into four different parts that will create a better seal, decrease wear on the cowling, and to make installation easier.

P/Ns MC0450502-29-1 and MC0450502-29-2 were designed so that there is extra material in the corner where they meet and make a right angle. The added material will allow for the seals to curve against the cowling while keeping the needed air tight seal. There should be an overlap of material when the cowling is reinstalled as seen in the right image of Figure 8. The left image shows how, if the seals are not mounted correctly, can create a gap at the turn that will cause poor recirculation of air.

1. See steps 1-3 in previous installation instructions on Pg. 10.
2. 0450502-6 will be replaced with MC0450502-28, MC0450502-29-1, MC0450502-29-2, and MC0450502-30. See Figure 8 below for location and orientation of new seals.
3. Use Figure 8 for installation orientation and overlap of MC0450502-29-1 and MC0450502-29-2
4. See steps 4-7 in previous installation instructions on Pg. 10.

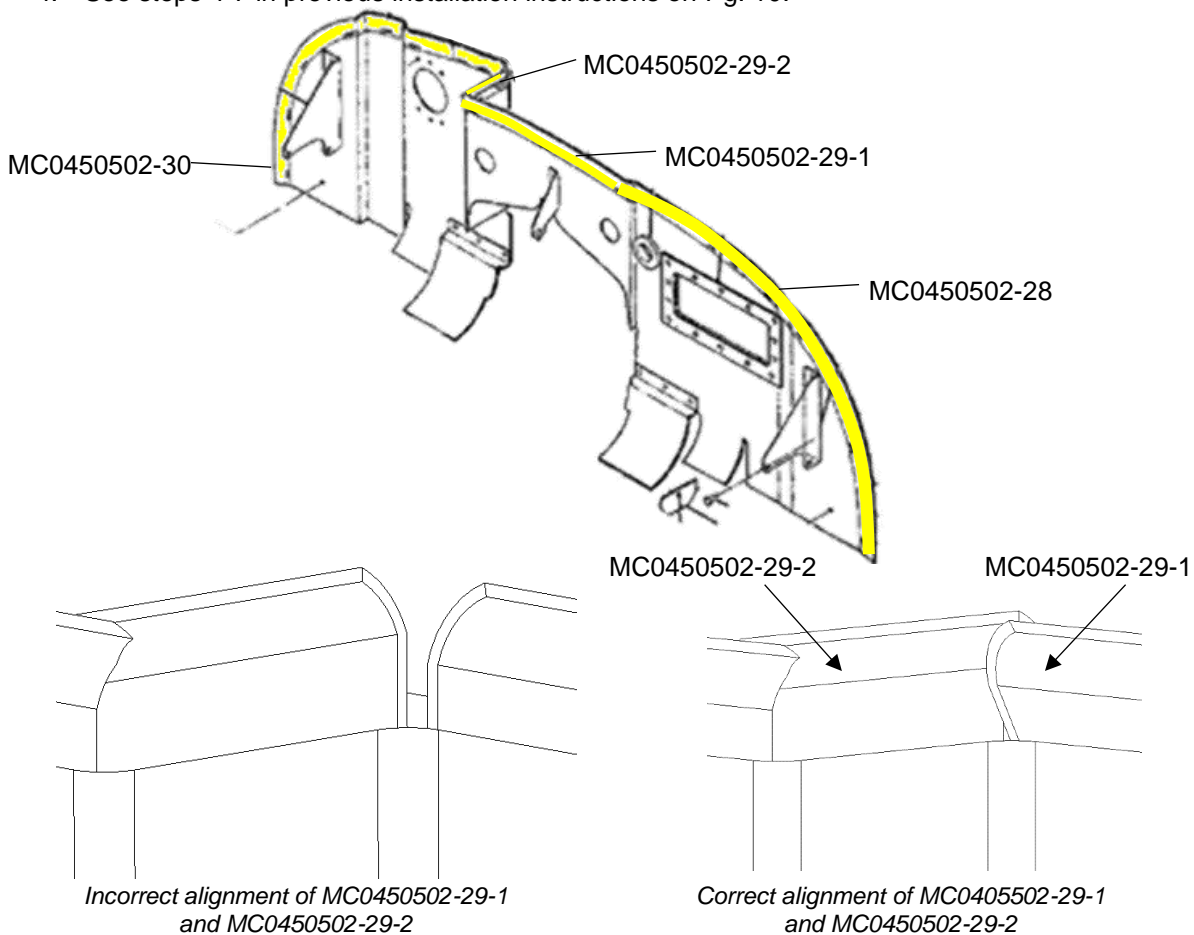


Figure 8: Special Installation Instructions for MC0450502-6

Note: MC0450502-29-2 should overlap MC0450502-29-1 to create a seal between the seals as shown in Figure 8.

Cessna 150D through Cessna 150K

For installation of MC0450502-29

P/Ns MC0450502-29-1 and MC0450502-29-2 were designed so that there is extra material in the corner where they meet and make a right angle. The added material will allow for the seals to curve against the cowling while keeping the needed air tight seal. There should be an overlap of material when the cowling is reinstalled as seen in the right image of Figure 9. The left image shows how, if the seals are not mounted correctly, can create a gap at the turn that will cause poor recirculation of air.

1. See steps 1-3 in previous installation instructions on Pg. 10.
2. 0450502-29 will be replaced with MC0450502-29-1 and MC0450502-29-2. See Figure 9 below for location and orientation of new seals.
3. Use Figure 9 for installation orientation and overlap of MC0450502-29-1 and MC0450502-29-2
4. See steps 4-7 in previous installation instructions on Pg. 10

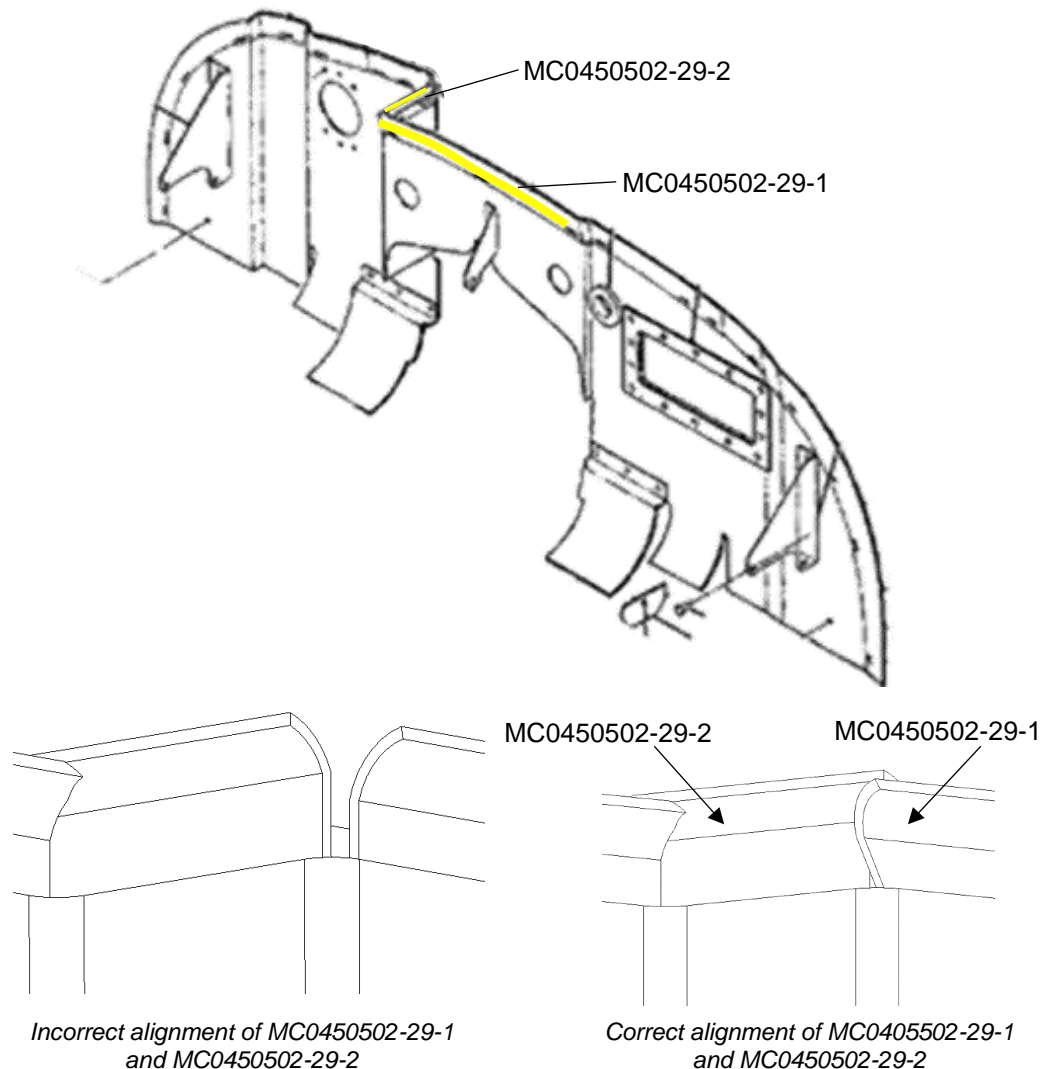


Figure 9: Special Installation Instructions for MC0450502-29

Note: MC0450502-29-2 should overlap MC0450502-29-1 to create a seal between the seals as shown in Figure 9.

Cessna 150L & 150M

For installation of MC0450502-29

P/Ns MC0450502-29-1 and MC0450502-29-2 were designed so that there is extra material in the corner where they meet and make a right angle. The added material will allow for the seals to curve against the cowling while keeping the needed air tight seal. There should be an overlap of material when the cowling is reinstalled as seen in the right image of Figure 10. The left image shows how, if the seals are not mounted correctly, can create a gap at the turn that will cause poor recirculation of air.

1. See steps 1-3 in previous installation instructions on Pg. 10.
2. 0450502-29 will be replaced with MC0450502-29-1 and MC0450502-29-2, See Figure 10 below for location and orientation of new seals.
3. Use Figure 10 for installation orientation and overlap of MC0450502-29-1 and MC0450502-29-2
4. See steps 4-7 in previous installation instructions on Pg. 10

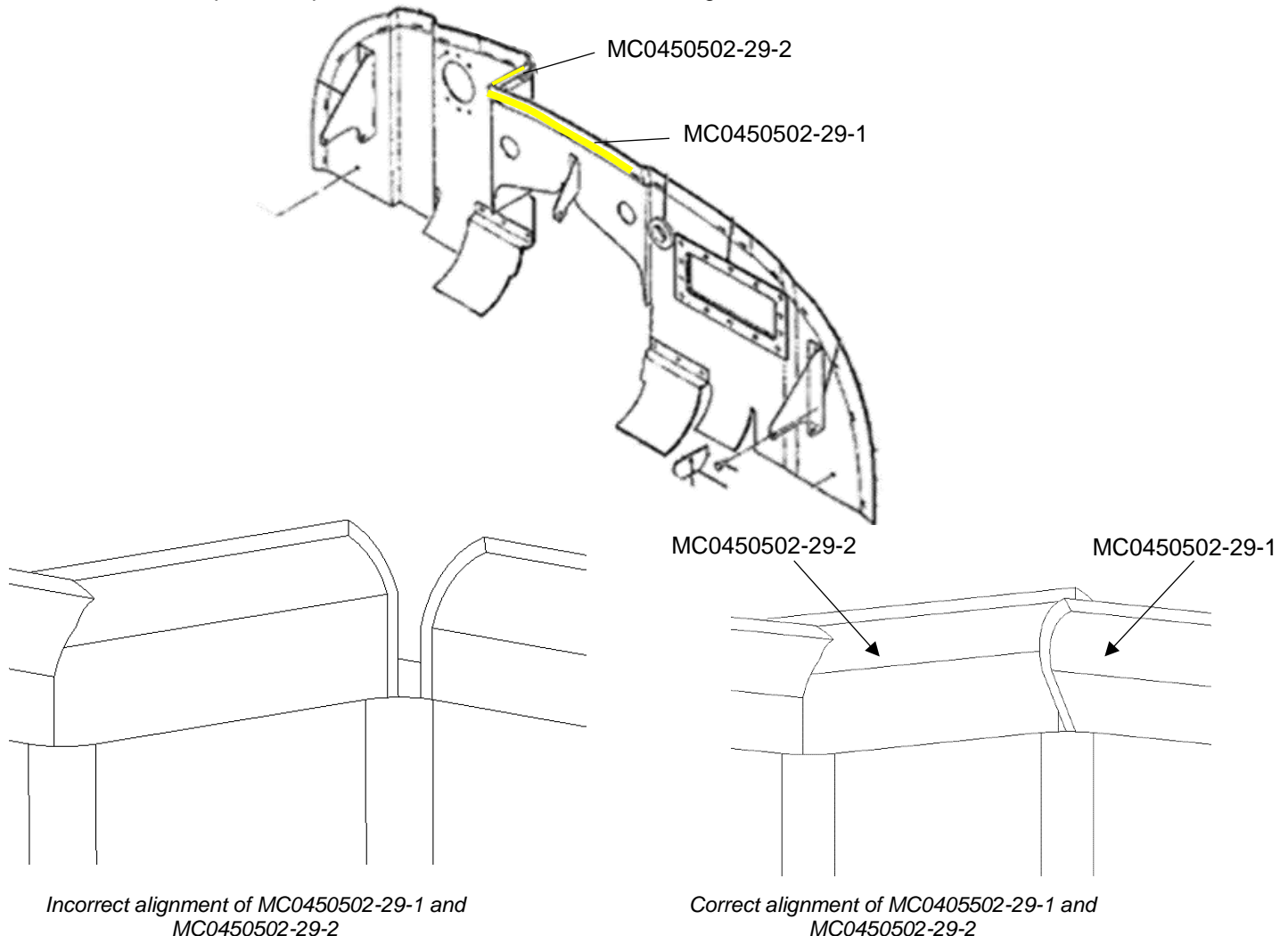


Figure 10: Special Installation Instructions for MC0450502-29

Note: MC0450502-29-2 should overlap MC0450502-29-1 to create a seal between the seals as shown in Figure 10.

Cessna 152 (ALL)

For installation of MC0455026-5L and MC0455026-5R

McFarlane parts MC0455026-5L and MC0455026-5R were created to replace Cessna parts 0455026-5. The Cessna part was separated into two (2) distinct parts for clarity of which side of the aircraft the part is to be installed. The original Cessna part was made of a material that could be used on either side which allowed for a single part to be used for both sides of the aircraft. McFarlane has upgraded the material to one with a low friction, black, Teflon coating that will decrease wear on the cowling and baffles. This change however, means the geometry of the parts cannot be used on both sides of the aircraft. The two distinct right and left parts provides better overall performance from your baffle seals and increases the life of the baffles and cowling.

Use the detailed instructions below for installation.

1. See steps 1-3 in previous installation instructions on Pg. 10.
2. 0455026-5 will be replaced with MC0455026-5L on the left side and MC0455026-5R on the right side of the aircraft as shown in Figure 11
3. See steps 4-7 in previous installation instructions on Pg. 10

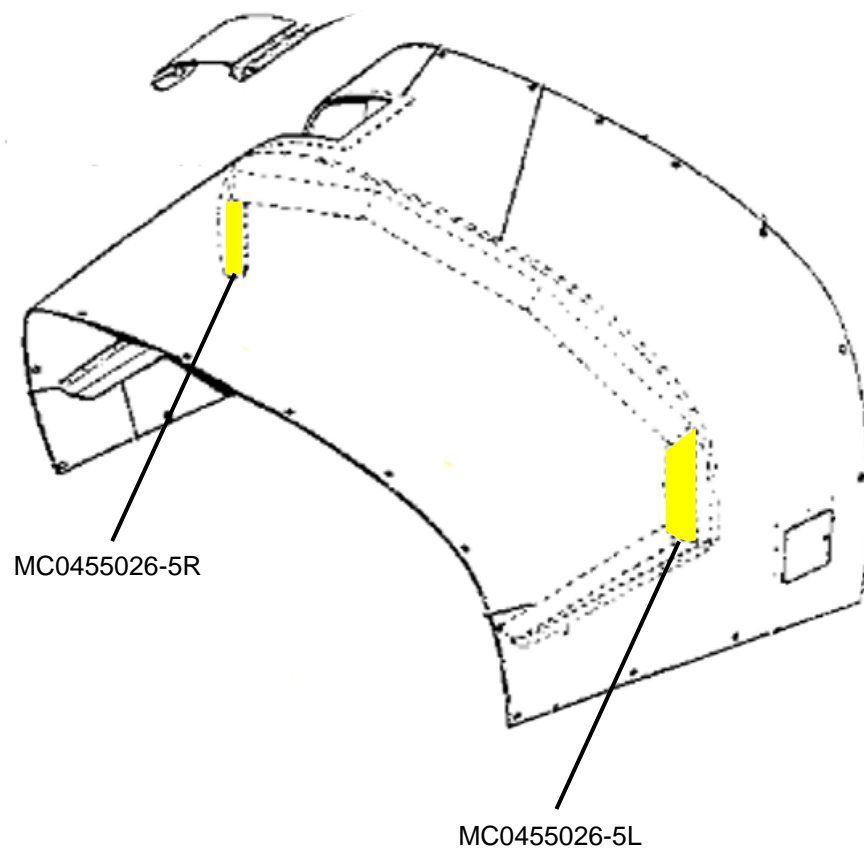


Figure 11: Special Installation Instructions for MC0455026-5L and MC0455026-5R

Cessna 172R & 172S

For installation of BSC-KT-1 on Cessna 172 series aircraft, see **General Installation Instructions** on Pg. 10.