THRUSH AIRCRAFT

CUSTOM KIT

CK-AG-62

REV. A: 04/09/2025

LEADING EDGE SHIELDS INSTALLATION

AIRCRAFT AFFECTED:

MODEL	**SERIAL NUMBERS**
S2R	ALL

David Yarbrough
Director of Engineering

TABLE OF CONTENTS

LOG OF REVISIONS

NOTE: Reformatting and correction of typographical errors is not considered revision.

REV	PAGE	DESCRIPTION OF REVISION	BY
IR	All	New Document Initial Release	T. Surratt 01/07/2025
A	5, 9, & 13	Identified 521UV Sikaflex sealant optional to Sikaflex 291 for fillet sealant.	T. Surratt 04/09/2025

1. PURPOSE/REASON FOR PUBLICATION

This Custom Kits provides installation instructions for Thrush's newly developed Leading Edge Shields. The Shields are designed to increase the impact resistance of the wings' leading edges.

2. SCOPE/COMPLIANCE

This document will provide the necessary parts and instructions for the successful installation of the Leading Edge Shields on the wings of Thrush S2R aircraft.

3. BY WHOM WORK WILL BE ACCOMPLISHED

The work is to be accomplished by an FAA Certified A&P or foreign equivalent.

4. APPROVAL

4-1 THRUSH AIRCRAFT, LLC

This Custom Kit is approved by the Engineering Department at Thrush Aircraft, LLC as a minor installation that does not affect flight.

4-2 FAA APPROVAL

The technical content of this Custom Kit is FAA approved.

5. MAN HOURS

Approximately 16 hours required.

6. SPECIAL TOOLS

N/A

7. PARTS LIST

PART NUMBER	NOMENCLATURE	KITS & QUANTITIES			
		(A)	(B)	(C)	(D)
572020002-001	SHIELD – LEADING EDGE	9	9	9	9
572020002-003	SHIELD – LEADING EDGE	1	/	1	/
572020002-005	SHIELD – LEADING EDGE	1	/	1	/
572020002-007	SHIELD – LEADING EDGE	1	/	1	/
572020002-009	SHIELD – LEADING EDGE	4	/	/	/
572020002-011	SHIELD – LEADING EDGE	/	2	/	2
572020002-013	SHIELD – LEADING EDGE	/	1	/	1
572020002-015	SHIELD – LEADING EDGE	/	1	/	1
572020002-017	SHIELD – LEADING EDGE	/	1	/	1
572020002-019	SHIELD – LEADING EDGE	/	2	/	/
572020002-021	SHIELD – LEADING EDGE	/	/	2	/
572020002-023	SHIELD – LEADING EDGE	/	/	/	2
572020002-025	SHIELD – LEADING EDGE	/	/	/	2
SIKAFLEX 291	SEALANT	10	10	10	10
521UV SIKAFLEX	SEALANT (OPTIONAL / FILLET)	10	10	10	10

7.1 KIT ORDERING KEY

Use the list below to determine the appropriate kit needed for order placement.

- CK-AG-62 (A) = 510 gallon aircraft without Bird Lights.
- CK-AG-62 (B) = 660 gallon aircraft without Bird Lights.
- CK-AG-62 (C) = 510 gallon aircraft with Bird Lights.
- CK-AG-62 (D) = 660 gallon aircraft with Bird Lights.

8. INSTALLATION

8.1 W/O BIRD LIGHTS

1. Verify Shields fit between wing skin upper and lower rivet rows, adjust profile fit by hand as necessary.
2. Locate -003 and -005 (510) or -013 and -015 (660) shields at stall horn, verify fit. (Reference Figures 8-1 & 8-3)
   NOTE: Do not trim for length.
3. Locate remaining shields on both wings as shown in Figures 8-1 through 8-4 starting with those located closest to rivet rows.
   NOTE: Trim length as necessary.

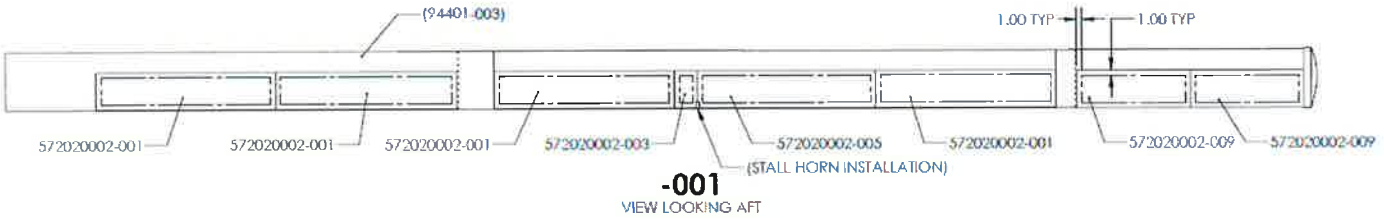

Figure 8-1

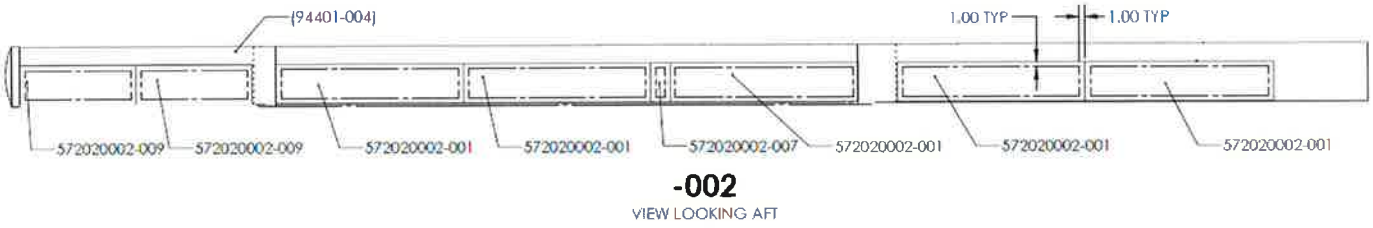

Figure 8-2

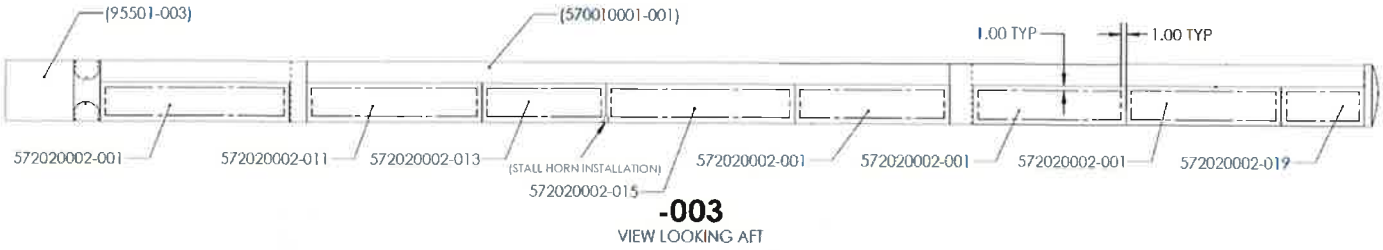

Figure 8-3

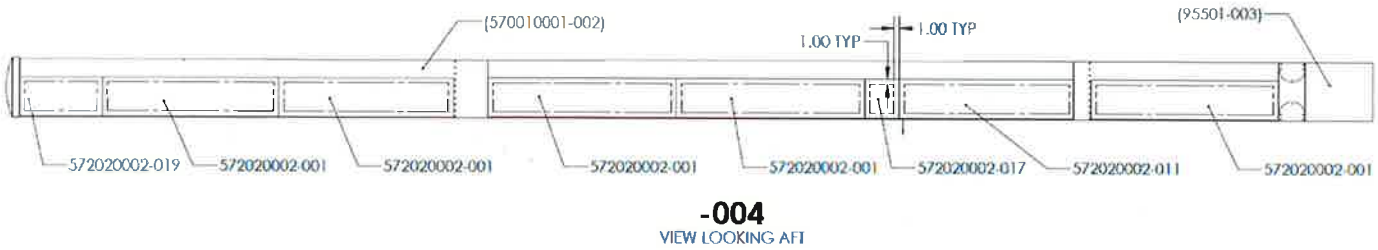

Figure 8-4

4. Clean shield and wing skin faying surfaces with isopropyl alcohol.
5. Cover forward side of shields with film or masking tape.
6. Starting in same order as alignment process, place bead of Sikaflex 291 marine sealant around perimeter on aft side of shield.

   NOTE: Should form a 1in wide bead around perimeter and be .125in thick.
7. Using the "double kiss method" place shield into position and press onto wing, work shield to spread sealant to a thin film. Remove shield and press shield into final position and ensure no gap between shield and leading edge.

8. Secure shield down with straps or masking tape. (Reference Figure 8-5)

   NOTE: When using straps to secure shields, be careful not to apply too much force as damage to trailing edges may occur.

   NOTE: Place a cushion between strap latches and wing surface. (Reference Figure 8-6)

Figure 8-5

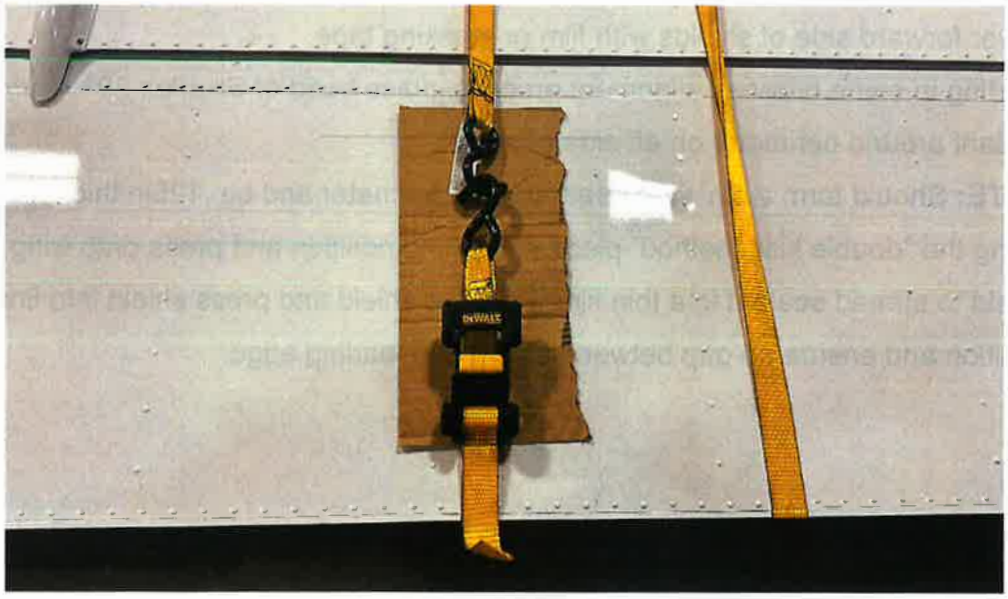

Figure 8-6

9. Remove excess sealant.
10. Repeat process for each shield.
11. Allow sealant to cure 4 hours minimum.
12. Remove straps or masking tape securing shields to wing leading edge skins and verify shields have proper adhesion.

    NOTE: Shields should not shift when hand pressure applied.
13. If shield is loose, remove and repeat installation process.
14. Apply fillet seal with Sikaflex 291 marine sealant (Sikaflex 521UV optional) as shown. (Reference Figure 8-7)

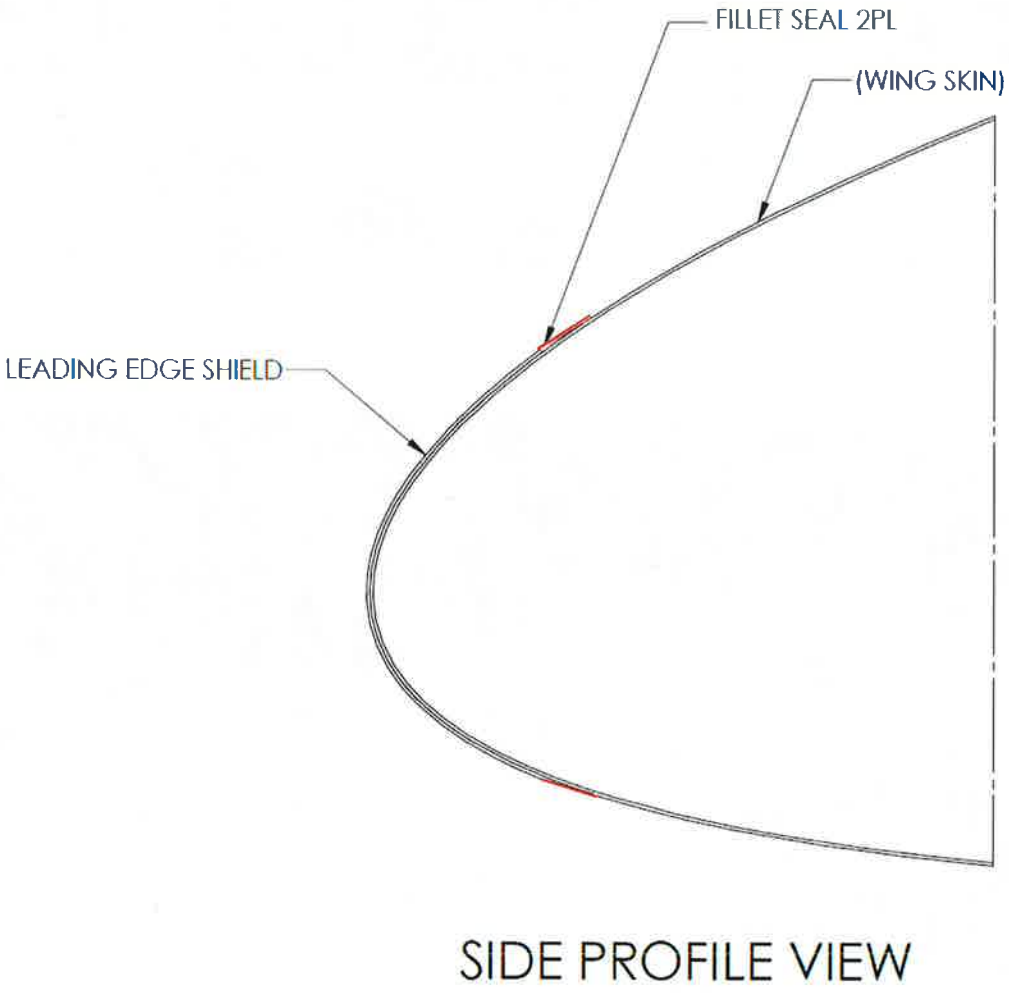

Figure 8-7

15. Allow sealant to cure 4 hours minimum.
16. Remove film or masking tape from leading edge shields. (Reference Figures 8-8 & 8-9)

Figure 8-8

Figure 8-9

8.2 WITH BIRD LIGHTS

1. Verify Shields fit between wing skin upper and lower rivet rows, adjust profile fit by hand as necessary.
2. Locate -003 and -005 (510) or -013 and -015 (660) shields at stall horn, verify fit. (Reference Figures 8-10 & 8-12)
   NOTE: Do not trim for length.
3. Align -023 and -001 shields at bird light on both left and right wing. (Reference Figures 8-10 – 8-13)
   NOTE: Trim length as necessary.
4. Locate remaining shields on both wings as shown in Figures 8-10 through 8-13 starting with those located closest to rivet rows.
   NOTE: Trim length as necessary.

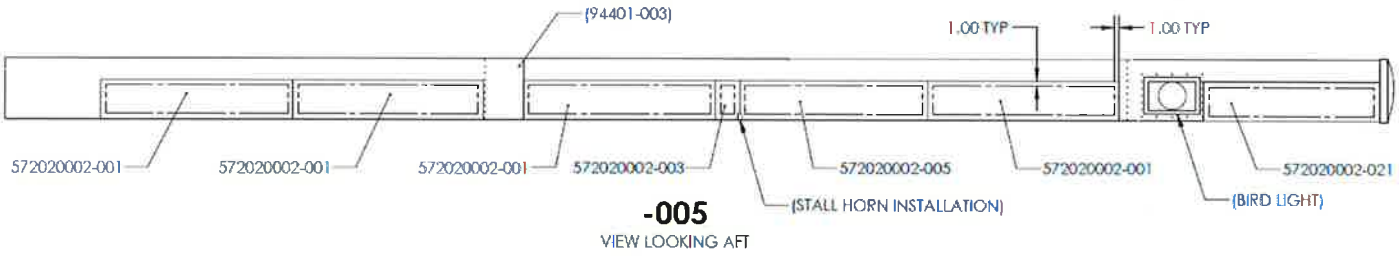

Figure 8-10

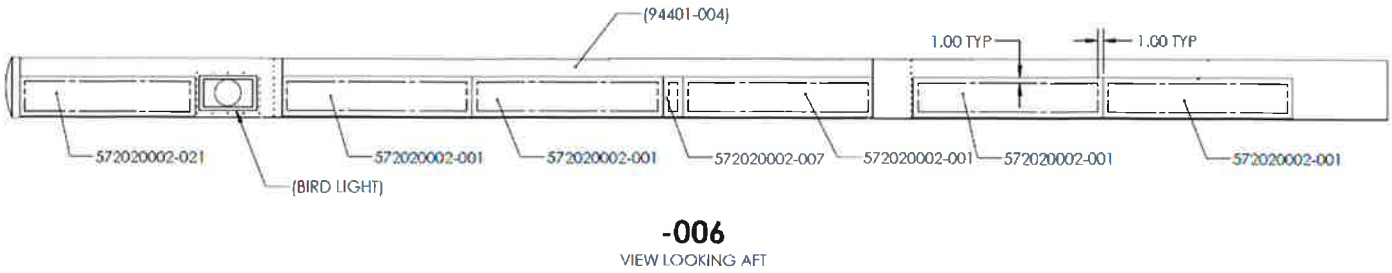

Figure 8-11

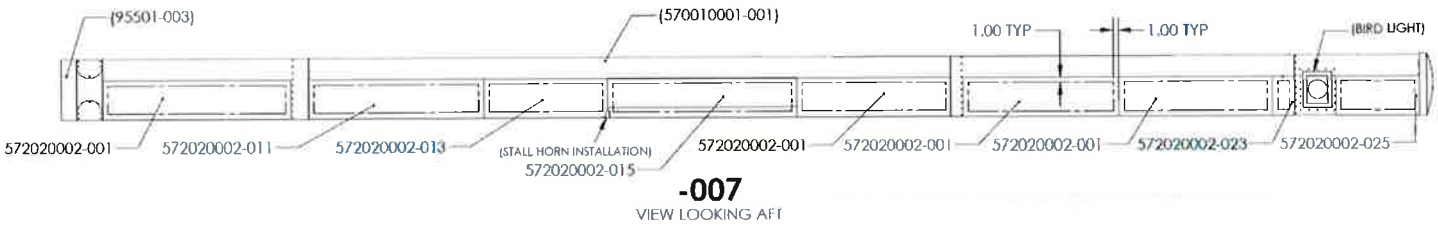

Figure 8-12

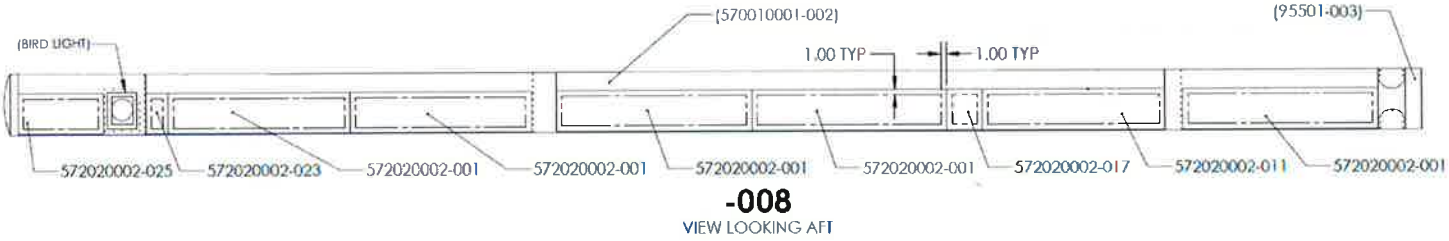

Figure 8-13

5. Clean shield and wing skin faying surfaces with isopropyl alcohol.
6. Cover forward side of shields with film or masking tape.
7. Starting in the same order as alignment process, place bead of Sikaflex 291 marine sealant around perimeter on aft side of shield.

   NOTE: Should form a 1in wide bead around perimeter and be .125in thick.
8. Using the "double kiss method" place shield into position and press onto wing, work shield to spread sealant to a thin film. Remove shield and press shield into final position and ensure no gap between shield and leading edge.
9. Secure shield down with straps or masking tape. (Reference Figure 8-5)

   NOTE: When using straps to secure shields be careful not to apply too much force as damage to trailing edges may occur.

   NOTE: Place a cushion between strap latches and wing surface. (Reference Figure 8-6)

10. Remove excess sealant.
11. Repeat process for each shield.
12. Allow sealant to cure 4 hours minimum.
13. Remove straps or masking tape securing shields to wing leading edge skins and verify shields have proper adhesion.

    NOTE: Shields should not shift when hand pressure applied.
14. If shield is loose, remove and repeat installation process.
15. Apply fillet seal with Sikaflex 291 marine sealant (Sikaflex 521UV optional) as shown in Figure 8-5
16. Allow sealant to cure 4 hours minimum.
17. Remove film or masking tape from leading edge shields. (Reference Figures 8-8 & 8-9)

9. RECORD OF COMPLIANCE

Make appropriate entry in airplane maintenance records as follows:
"Thrush Custom Kit CK-AG-62 A complied with at _____ total hours on aircraft."

Modification accomplished by:

_____

Name & Certificate # Date

10. RESPONSE CARD

The final step in compliance with this Custom Kit is to complete and return the compliance card on the next page. It may be mailed, faxed, or scanned and e-mailed.

Fax:	Thrush Support	229-317-8225
Email:	Thrush Support	support@thrushaircraft.com

11. CUSTOM KIT CK-AG-62 A COMPLIANCE REPORT

Aircraft S/N:	Aircraft Owner:
Aircraft Registration #:	Address of Owner:
Airframe Total Time:	City & State:
Engine Total Time:	Physical Location:
Complied With By:	Date of Compliance:
Signature:	Certificate #:

PLEASE RETURN THIS REPORT ONLY AFTER MODIFICATION IS MADE
This response card may be mailed, faxed to (229) 317-8225, or emailed to support@thrushaircraft.com.

Fold, Tape, & Mail (Do Not Staple)

Return Address:

Thrush Aircraft LLC.
Attn: Customer Assurance and Support
300 Old Pretoria Road
Albany, GA 31721