



2141 ICON Way, Vacaville, CA 95688 - Tel: 707.564.4000 – www.iconaircraft.com

SAFETY DIRECTIVE/ALERT

SD-062117 REV A

DATE ISSUED: 06/20/2017
DATE EFFECTIVE: 06/21/2017
SUPERSEDES NOTICE: SD-051117-B, SD-061417-B
SUBJECT: Throttle cable assembly damage
AIRCRAFT AFFECTED: **MODEL:** A5
S/N: 00001, 00003 to 00020
REQUIRED ACTION: Replace throttle cable assembly, update conduit routing, install insulation
TIME OF COMPLIANCE: 1) Prior to next flight

PURPOSE:

ICON is committed to designing, manufacturing, delivering, and supporting a high quality Light Sport Aircraft, providing a level of safety well beyond expectations. ICON has experienced reports of throttle assembly damage. ICON has determined that the throttle conduit inner Teflon liner was heat damaged due to its proximity to the #4 cylinder exhaust header. This safety directive/alert covers the replacement of the conduit and cable assembly, an updated routing of the conduit and cable assembly under the fuel tank, an updated routing of the conduit and cable assembly in the engine bay along with the application of reflective insulation to the cable and conduit assembly in the engine bay.

PARTS LIST:

PART	DESCRIPTION	QTY
6271	TERMINAL, CONDUIT, MCFARLANE SLIP FIT	2
HWCC-1	CABLE HOUSING, PTFE LINED, .063, BLACK	1
ICA008253	CABLE, THROTTLE	1
MS24665-151	PIN, COTTER, CRES, .063X.500	1
MA830	ADHESIVE, METHACRYLATE 2-Part	A/N
TY24MX	CABLE-TIE, NYLON 6-6, 30LB, 5.50, TY-RAP	A/N
LOCTITE 243	THREADLOCKER, PRIMERLESS, OIL TOL, REMOVABLE MED STR, BLUE	A/N
TEF-GEL	TIKAL ANTI-CORROSION COMPOUND	A/N
CB9120V5	CABLE TIE ANCHOR	2
CB200	CLICK BOND ADHESIVE	A/N
ICA011907	INSULATION REFLECTIVE	9 in



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INSTRUCTIONS:

Task Specific Training:

All tasks are to be performed by an ICON Aircraft, Inc. trained mechanic with an Airframe certificate.

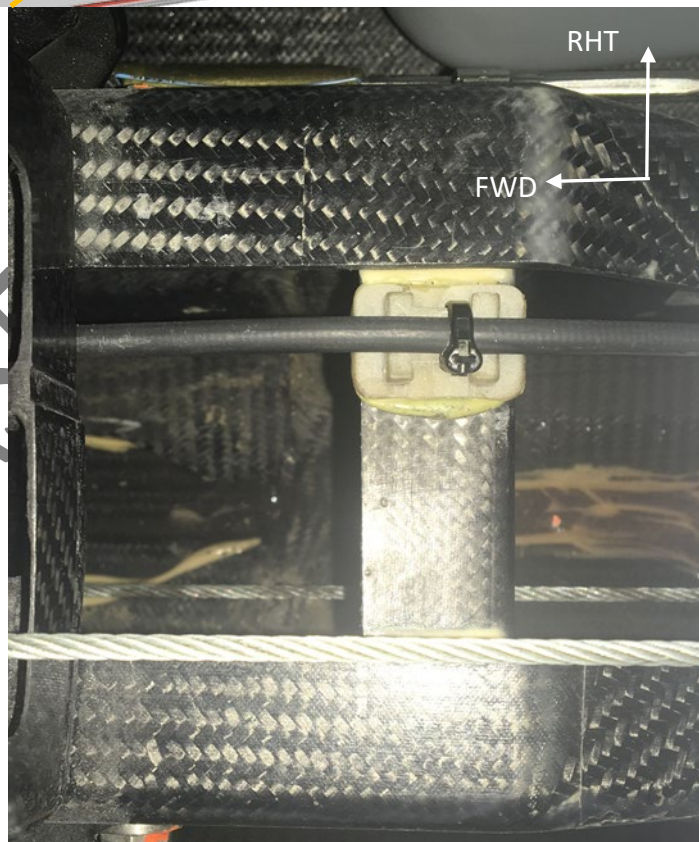
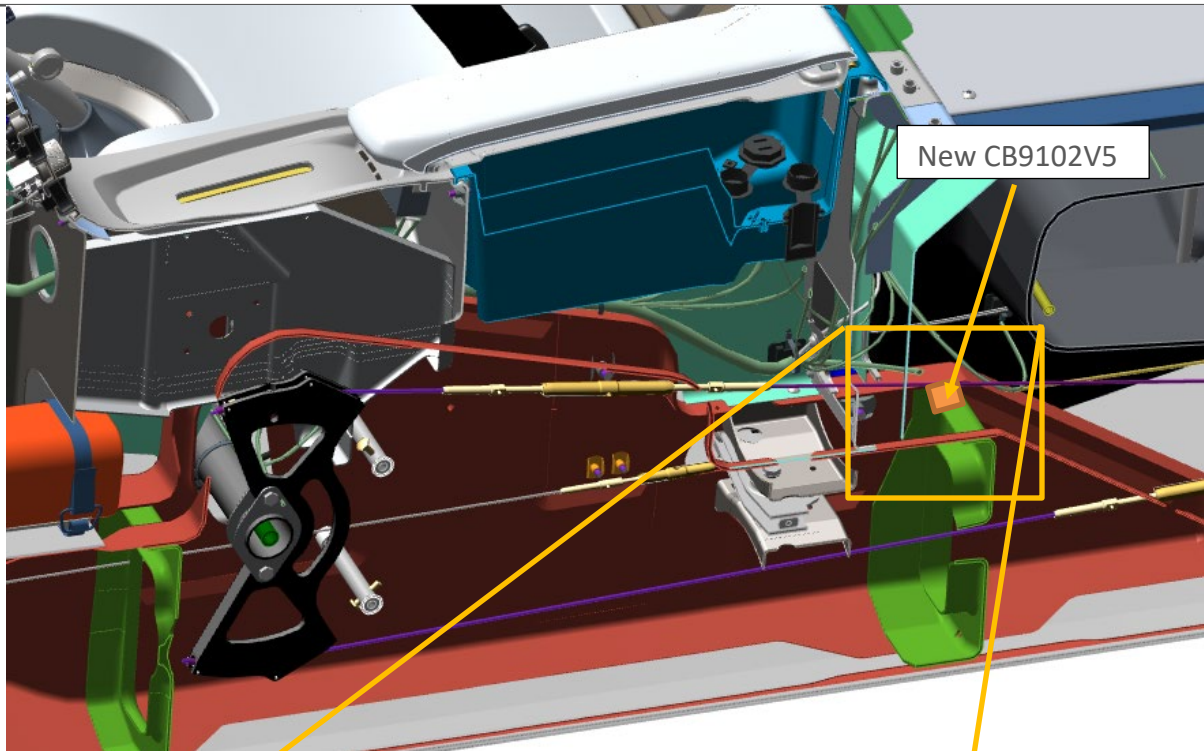
1. Remove center console armrest and bucket, remove throttle handle, and throttle bezel in accordance with the most current ICON A5 maintenance manual (ICA000833).

Removal of the throttle conduit (housing)

1. It is permissible to gain access to the conduit by removing access panels and parts that have removal instruction/procedures in the latest maintenance manual:
 - a. Remove both seat backs, the procedure can be completed with only the left seat back removed but removal of both is permissible.
 - b. Remove baggage floors.
2. Remove the throttle cable by disconnecting the cable at the engine throttle body and at the throttle lever, then pull the cable out of the conduit through the ELT access panel.
3. After the throttle cable is removed. Disconnect the conduit terminal from the engine and the cockpit center section bulkhead.
4. Cut the ty-raps that secure conduit to the fuselage.
5. Remove the three p-clamps (one in the center section two on the aft fuselage bulkhead behind the baggage compartment)
6. Cut the terminals off the conduit on both ends using a set of side cutters.
7. Spray some soapy water or other rubber safe lubricant at both grommets (at the forward bulkhead and one in the intercostal on the aft center section).
8. Slide the conduit out of the fuselage.
9. Through access gained by removing the left seat back, cut and remove the remaining ty-rap on the right-side keel aft of the aft keel intercostal, do not remove the cable tie anchor.

Installation Click Bond cable tie anchors

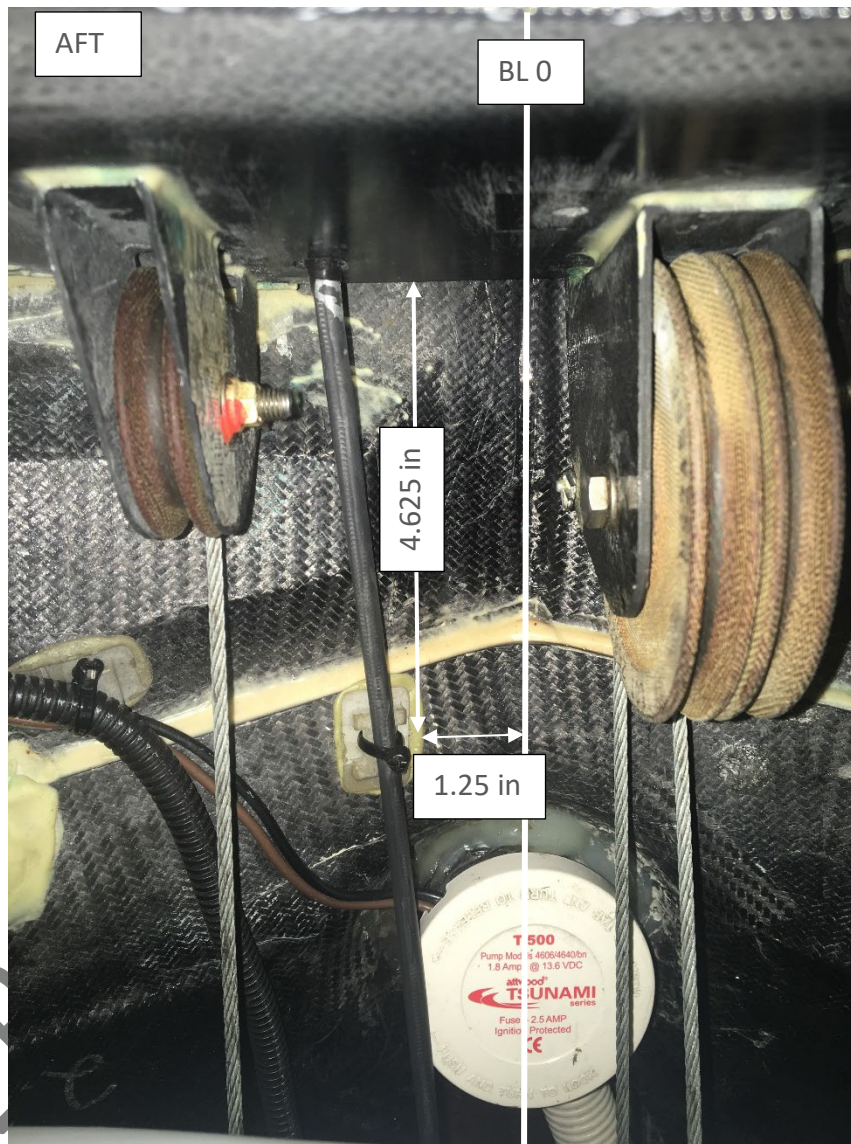
1. Install a new cable tie anchor (CB9120V5) on the top right side of aft center section intercostal bulkhead install the cable tie anchor in accordance with the Click Bond specification CBPS-206E. Butt the cable tie anchor against right side keel overlap as shown below:

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2. Install a new cable tie anchor (CB9120V5) 1.25 in right of the keel centerline and 4.625 in forward of the forward bulkhead at the aft edge of fuselage step ramp as shown below in accordance with Click Bond Spec CBPS-260E.

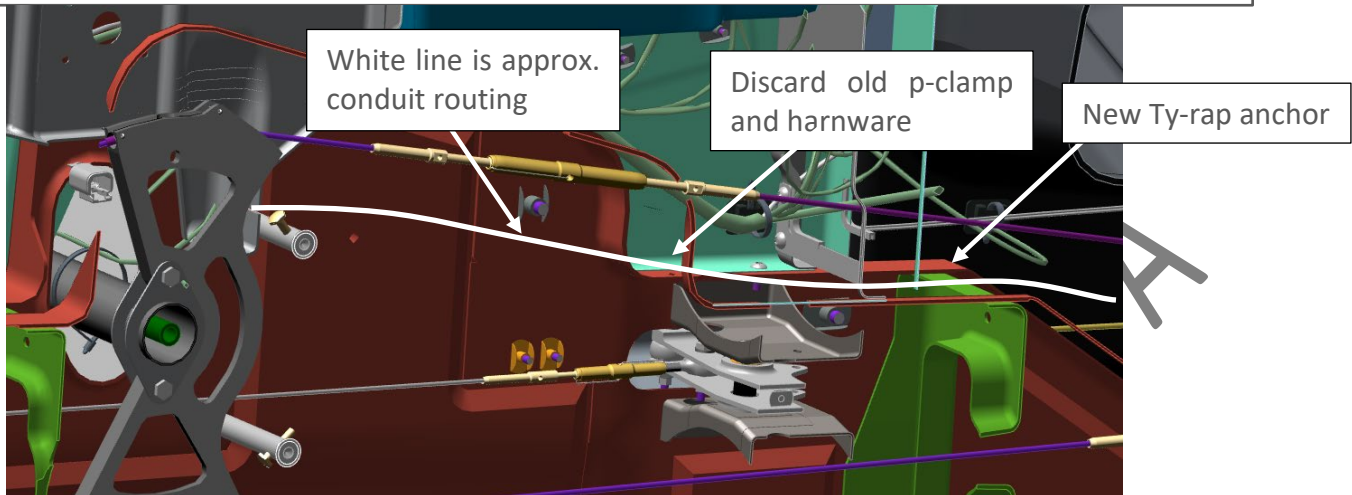


Installation of the throttle conduit

1. Use a new HWCC-1 conduit and apply soapy water spray to the conduit prior to routing through the already installed grommet on the forward fuselage bulkhead. Ensure grommet is properly installed.
2. Route the cable aft to forward on top of the keel aft intercostal to the throttle lever. Allow for extra length to facilitate termination of the conduit.

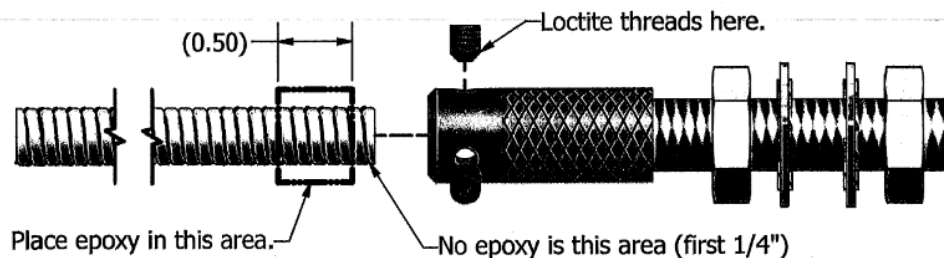
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3. Terminate the throttle lever side of the conduit using the following method. Use a metal cut off wheel or a metal cutting hand saw to cut the conduit. DO NOT use side cutters. Use MA830 plexus adhesive for the epoxy and Loctite 243 on threads of the set screws.

Installation Instructions For McFarlane P/N 6271 Slip Fit Terminal Assembly



The following installation options are available:

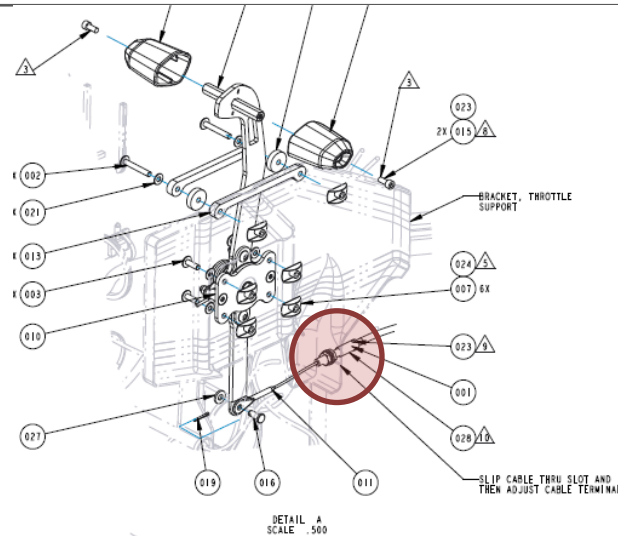
Permanent:

1. Apply a small amount of epoxy adhesive to the conduit in the indicated area above (do not apply epoxy to the first 1/4" of the conduit).
2. Using a rotating motion, insert the conduit fully into the slip fit terminal, wipe off any excess exposed epoxy.
3. Apply a small amount of thread locking adhesive to the indicated end of the set screws.
4. Tighten set screws until the screw bottoms out on the conduit, then add an additional 1/4 turn.
5. Before adhesive and epoxy cures, check cable function to ensure free movement and adjust set screws as necessary.
6. Allow adhesive and epoxy to cure completely before installation of the control.

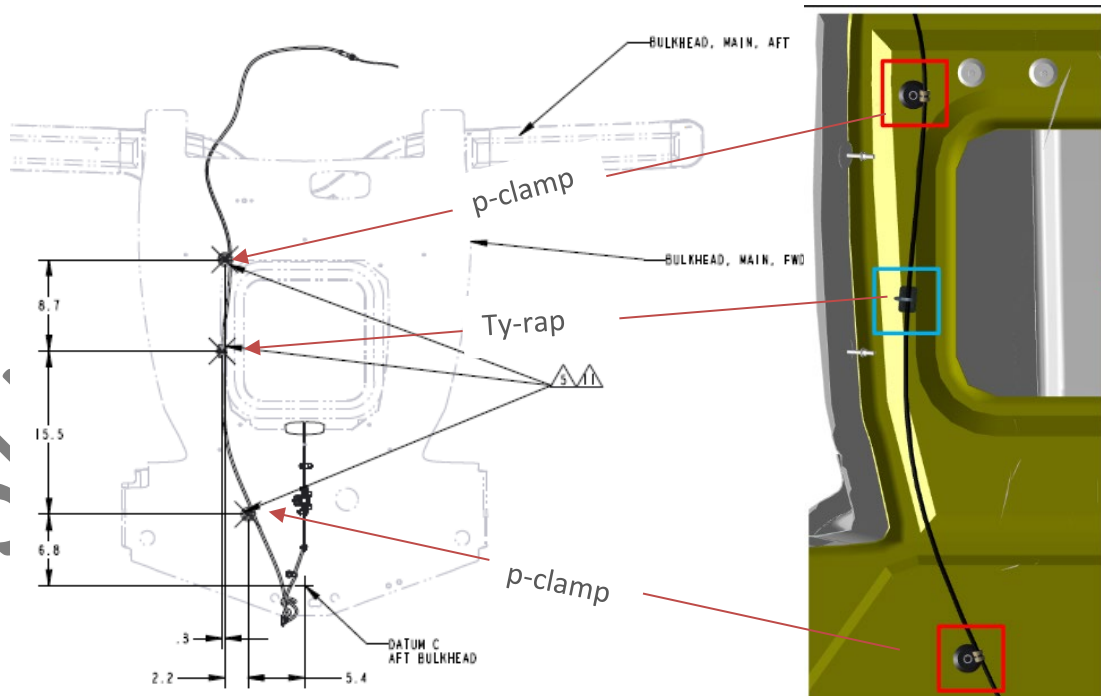
4. Adjust the aft jam nut to bottom out on the base of the terminal then install the terminal into the center section bulkhead in the following location:

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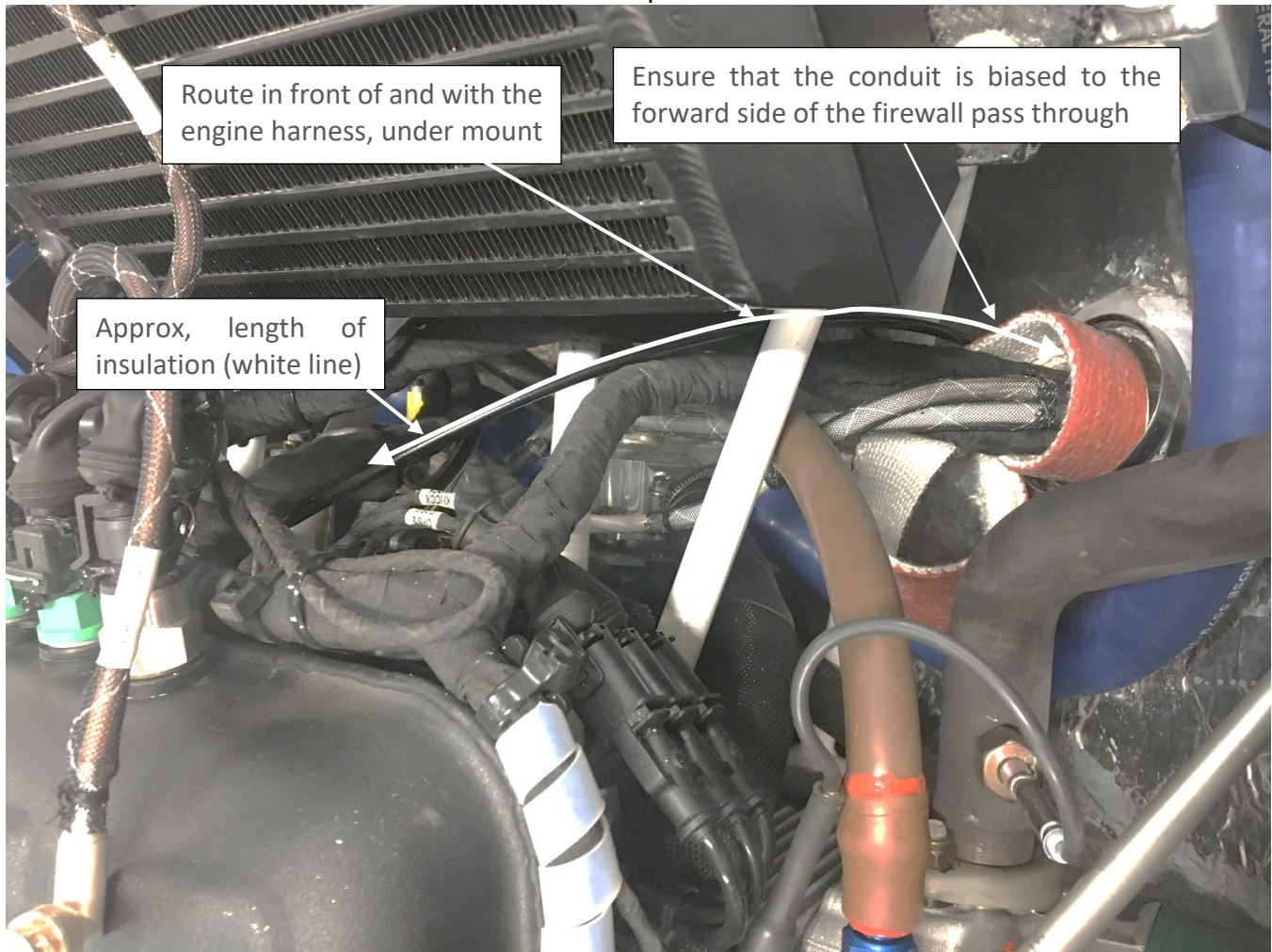
5. When routing the conduit under the fuel tank ensure the conduit doesn't become wrapped or entangled with any flight control cables. Adjust as necessary to ensure the conduit passes cleanly between the center section intercostal and the forward bulkhead.
6. Secure the conduit with a TY24MX Ty-rap at the cable tie anchors
7. Route the remaining conduit through the forward main fuselage bulkhead underneath the main landing gear actuator and up the right side of the aft main bulkhead up through the forward side of the right-side firewall access hole as shown below:



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8. On the firewall side, ensure the conduit is biased to the most forward side of the firewall access hole. Then route the conduit as shown in the photo below.



9. Terminate the conduit on the engine side using the same methods in step 3 above.
10. Prior to final install of the conduit tightly wrap (approx. two wraps) of approximately 8-9 inches of ICA011907 reflective insulation around the conduit from the firewall pass through up to center of the intake manifold of the engine. Secure reflective insulation with TY24MX ty-raps. Use 4 ty-raps total with one about 1/2" inboard on each end then the two middle ty-raps evenly spaced. Ensure there is no exposed conduit from the firewall pass through up to approx. the centerline of the manifold.
11. Secure the conduit terminal at the engine throttle body in accordance with the ICA000833 maintenance manual (current revision)
12. Re-install the following in accordance with the latest maintenance manual:
 - a. Both seat backs
 - b. Baggage floors



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Installation of throttle cable

1. Carefully insert the new ICA008253 throttle cable through the ELT access panel and into the conduit. Do not allow the cable to touch surfaces where it could gather dirt or dust. Use care not to permanently deform the cable during the installation process. The cable should easily route through the conduit. If the cable stops and can't be easily pushed/routed through without excessive twisting or shoving then the conduit needs to be replaced.
2. Connect the new throttle cable to the throttle lever using the existing pin and washer. Use a new cotter pin MS24665-151.
3. Rig the throttle in accordance with the latest maintenance manual section 3.7.3 and once finished, trim the excess throttle cable to within approximately 1" of the throttle body cable attachment fitting.
4. Re-install the ELT in accordance with the latest maintenance manual.
5. Move the throttle to full and idle several times watching how the cable enters the conduit near the throttle lever especially at full throttle. Any tendency for the throttle cable to buckle or kink is unacceptable and must be troubleshooted. This may mean replacement of the conduit. The throttle should be able to move through the normal range of motion with no kinking tendencies. If the kinking tendency should occur after new conduit installation, contact ICON customer service and support for assistance.

Reassembly of the center section:

1. Reinstall the center console armrest and bucket, throttle handle, and throttle bezel in accordance with the most current ICON A5 maintenance manual (ICA000833)
2. Perform engine run and verify normal throttle operation from full throttle to idle throttle.

Make the following logbook entry:

"The corrective action of Safety Directive SD-062117-A has been complied with and reported to ICON Aircraft Customer Service and Support".

If you need assistance relocating your A5 to your home base or temporary storage arrangements, please contact ICON Aircraft and ask for Customer Service and Support.



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If you are no longer owner/operator of this aircraft, please forward this information to the present owner/operator and notify ICON Aircraft, Owners Center at:

ICON Aircraft
2141 ICON Way
Vacaville, CA 95688
(855) FLY-ICON or (707) 564-4000
support@iconaircraft.com

Please include the aircraft registration number, serial number, your name, and if known the contact information of the new owner/operator.

SUPERSEDED BY SB-01111

SAFETY DIRECTIVE APPROVAL

Matthew Gionta	VP Engineering	6/21/2017
NAME	TITLE	DATE


Bret Davenport

Compliance/CS&S Engineering	6/21/2017
TITLE	DATE

NAME	TITLE	DATE
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SUPERSEDED BY SB-011118-A