

Service Bulletin

Title: SBAS350-25-04; AS350 Air Conditioner Tail Boom Condenser Blower Motor Connectors

Revision	Issue Date	Checked by	Approved by
-	02-MAY-2025		

Summary: The purpose of this Service Bulletin is to provide instructions for replacing the Molex Connectors with the replacement Deutsch connectors on the tail boom condenser blower assemblies. This Service Bulletin is optional and may be performed at the operator's discretion.

Compliance: Optional

Effectivity: Airbus Helicopters models AS350B, AS350B1, AS350B2, AS350B3, AS350BA, AS350C, AS350D, and AS350D1 equipped with the Air Comm Corporation AS350-204-1 thru -12 air conditioning system.

Reference: FAA / STC # SR00643DE, Airbus Helicopters AS350 Air Conditioning System.

Electrical: No change

Weight & Balance: No change

Labor: Labor hours are an estimate given for information only. It is estimated to take one airframe technician 1 hour.

Approval: The technical aspects of this Service Bulletin are based on FAA approved data.

Discussion:

The Molex blower motor connectors used in the Air Comm Corporation Tail Boom Mounted Condenser Assembly, shown in Figure 1, are now obsolete and have been replaced with Deutsch connectors as built per S-7095EC-3 (shown in Figure 2) and AS350-8424-2 (shown in Figure 4).

When replacing one or both of the blower assemblies P/N S-7095EC-2 on the condenser assembly with the replacement P/N S-7095EC-3, it is necessary to replace both of the aircraft-side connectors with the new P/N ES59112-13. Additionally, the connectors on both EMI Filters must be replaced with P/N ES59112-14 and P/N ES59112-13.

Similarly, if any of the EMI filters are being replaced with the new P/N AS350-8424-2, replacement of the blower assembly connectors and aircraft-side connectors will be needed. The assemblies must be part-marked accordingly.

If only performing a connector replacement due to connector failure, replace the obsolete Molex connectors on both blower assemblies, EMI Filters, and aircraft-side connectors with the Deutsch connectors. The assemblies must be part-marked accordingly.

This service bulletin provides instructions for replacing Molex connectors with Deutsch connectors, both during blower/filter replacements and for connector-only replacements.

Revision History:

Revision – is the initial release, no changes.

Require Material for Ordering:

ES59112-13 Deutsch Plug Assembly – Socket Contacts included (QTY 4)

ES59112-14 Deutsch Receptacle Assembly – Pin Contacts included (QTY 4)

Optional Materials for Ordering:

ES59112-34 Socket Contacts (Spares)

ES59112-35 Pin Contacts (Spares)

Procedure:

Warning: Comply with all general instructions and safety instructions per the applicable aircraft AMM.

1. If both blower assemblies P/N S-7095EC-2 were replaced with P/N S-7095EC-3, skip to step 2. Otherwise, follow the steps below to install ES59112-14 Deutsch Receptacles on any blower assembly not being replaced to convert it to P/N S-7095EC-3.
 - 1.1. Remove the Molex connector from any blower assembly not being replaced by trimming the wires as close as possible to the connector to preserve wire length.
 - 1.2. Strip the wire insulation back between 0.222 and 0.284 inch [Reference DEUTSCH Field Maintenance Crimp Tool HDT-48-00].
 - 1.3. Crimp a pin contact ES59112-35 to each of the striped wires using Deutsch tool HDT- 48-00 crimping tool.
 - 1.4. Insert the red wire into Pin 1, and the black wire into Pin 2 of the Deutsch connector ES59112-14 as shown in the electrical schematic of Figure 3.
 - 1.5. Ensure contacts are locked in per Figure 6 and engage the wedge lock.
 - 1.6. Locate the P/N marking on any converted blower assembly and add with indelible ink "SBAS350-25-04".
2. After installing or converting both blower assemblies to P/N S-7095EC-3, locate the existing EMI filters. If both EMI filters P/N AS350-8424-1 are being replaced with P/N AS350-8424-2, skip to step 3. Otherwise, disconnect the filters and follow the steps below to install Deutsch connectors on any EMI filter not being replaced to convert it to P/N AS350-8424-2.
 - 2.1. First, remove the Molex connector that attaches to the blower assembly, marked as ③ in Figure 4, by trimming the wires as close as possible to the connector to preserve wire length.
 - 2.2. Strip the wire insulation back between 0.222 and 0.284 inch [Reference DEUTSCH Field Maintenance Crimp Tool HDT-48-00].
 - 2.3. Crimp a socket contact ES59112-34 to the striped positive (Red) wire using Deutsch tool HDT- 48-00 crimping tool.

- 2.4. Insert both negative wires (White 22 AWG & 14 AWG) into one socket contact P/N ES59112-34 and crimp them together
- 2.5. Insert the positive wire into Pin 1, and the negative wires into Pin 2 of the Deutsch connector ES59112-13 as shown in the electrical schematic of Figure 5.
- 2.6. Ensure contacts are locked in per Figure 6 and engage the wedge lock.
- 2.7. Second, remove the Molex connector that attaches to the aircraft relay panel, marked as ④ in Figure 4, by trimming the wires as close as possible to the connector to preserve wire length.
- 2.8. Strip the wire insulation back between 0.222 and 0.284 inch [Reference DEUTSCH Field Maintenance Crimp Tool HDT-48-00].
- 2.9. Crimp a pin contact ES59112-35 to the positive (Red) wire and another one to the negative (white) wire using Deutsch tool HDT- 48-00 crimping tool.
- 2.10. Insert the positive wire into Pin 1, and the negative wire into Pin 2 of the Deutsch connector ES59112-14 as shown in the electrical schematic of Figure 5.
- 2.11. Ensure contacts are locked in per Figure 6 and engage the wedge lock.
- 2.12. Repeat steps 2.1 to 2.11 for second EMI filter if needed.
3. After installing or converting both blower assemblies to P/N S-7095EC-3 and EMI Filters to P/N AS350-8424-2, locate existing Molex Connectors on the aircraft-side leading to the relay panel. The new aircraft-side connectors ES59112-13 will plug into the mating connectors of the EMI Filters AS350-8424-2 as shown in Figure 3.
4. Trim wires of aircraft side Molex connectors being replaced (Refer to the electrical schematic in Figure 3 for assembly labeling):
 - a) For RH Blower Assembly, trim wires ACCA26A12 and ACCA33A12N at the existing connector to maintain wire length.
 - b) For LH Blower Assembly, trim wires ACCA27A12 and ACCA32A12N at the existing connector to maintain wire length.
5. Strip the wire insulation back between 0.222 and 0.284 inch [Reference DEUTSCH Field Maintenance Crimp Tool HDT-48-00].
6. Crimp a socket contact ES59112-34 to each of the striped wires using Deutsch tool HDT- 48-00 crimping tool.
7. Insert crimped wires as follows (Refer to Figure 6 for contact insertion instructions):
 - a) For RH Blower Assembly, insert crimped wire ACCA26A12 into Pin 1 and crimped wire ACCA33A12N into Pin 2 of a Deutsch Connector ES59112-13 as shown in Figure 3.
 - b) For LH Blower Assembly, insert crimped wire ACCA27A12 into Pin 1 and crimped wire ACCA32A12N into Pin 2 of a Deutsch Connector ES59112-13 as shown in Figure 3.

8. Ensure contacts are locked in per Figure 6 and engage the wedge lock.
9. Reconnect the Condenser Blower Assemblies and EMI filters as shown in Figure 3.

Note: It is not necessary to part mark the assembly with the service bulletin number if installing a new S-7095EC-3.

Note: If necessary, contact removal instructions are shown in Figure 7. Extra pins and sockets are not supplied with connector assembly

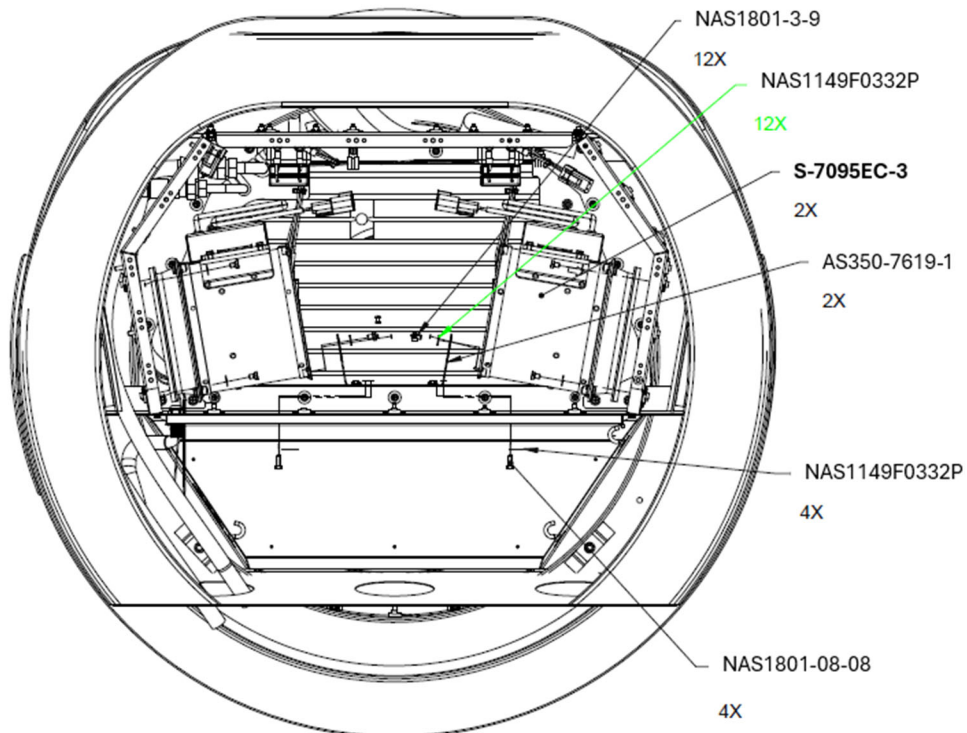


Figure 1: Tail boom Condenser

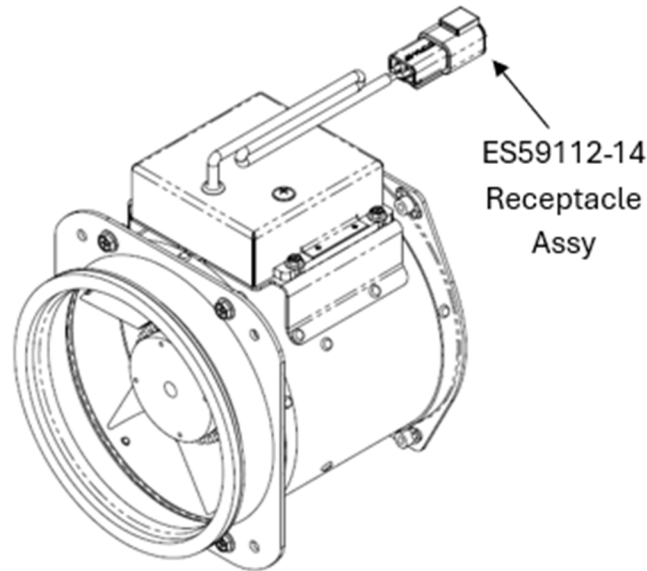


Figure 2: Blower Assembly S-7095EC-3

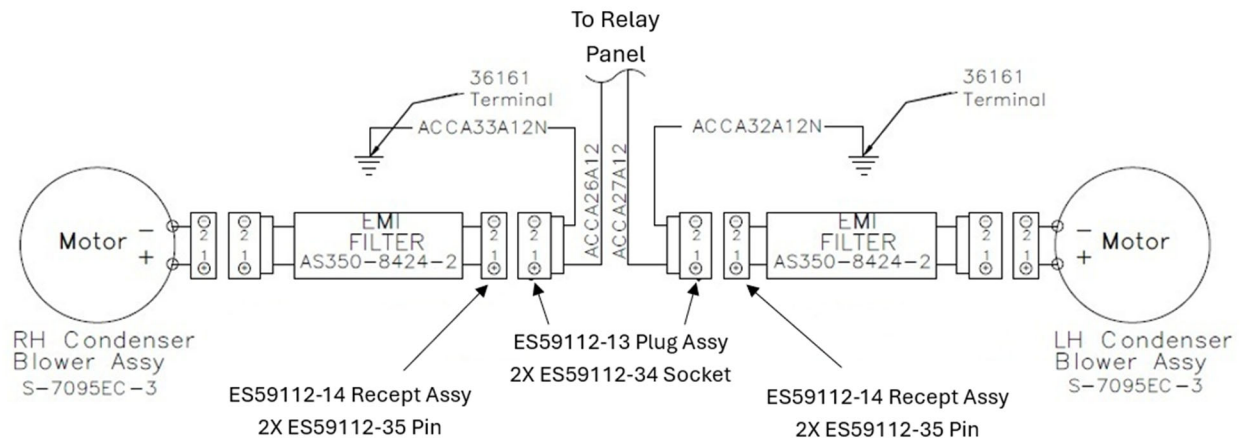
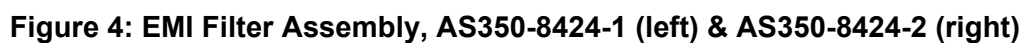
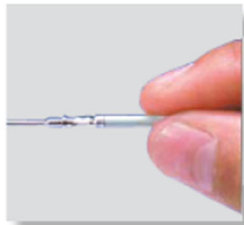


Figure 3: Electrical Schematic



Assembly Contact Insertion (DTM, DT, DTP)



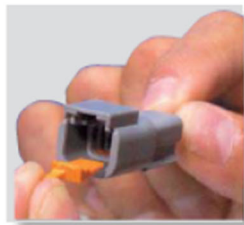
1. Grasp crimped contact approximately 1.0" (25.4mm) behind the contact barrel.



2. Hold connector with rear grommet facing you.



3. Push contact straight into connector grommet until a click is felt. A slight tug will confirm that it is properly locked in place.



4. Once all contacts are in place, insert orange wedge: receptacles - with half holes aligning with contacts. Plugs - with contacts aligning behind full holes. The orange wedge will snap into place.

NOTE: The receptacle is shown - use the same procedure for plug.

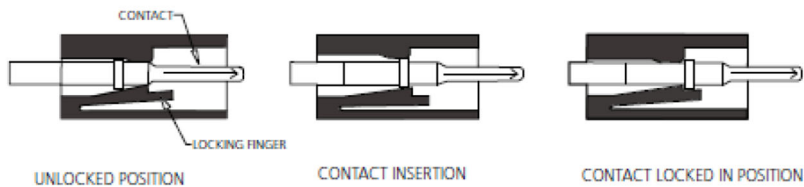
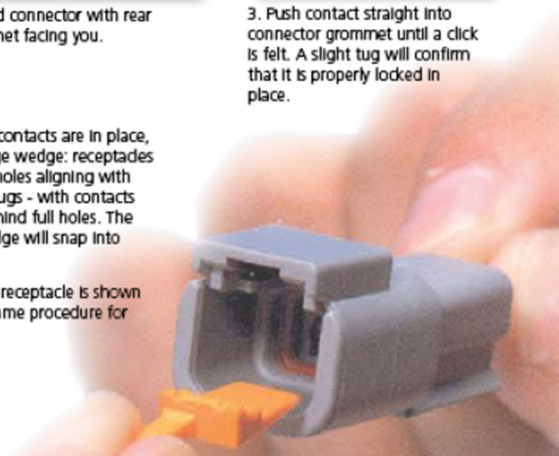
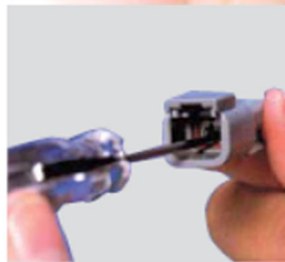


Figure 6: Contact Insertion

Contact Removal



1. Remove orange wedge using needlenose pliers to pull wedge straight out.



2. To remove the contacts, gently pull wire backwards, while at the same time releasing the locking finger by moving it away from the contact with a screwdriver.



3. Hold the rear seal in place, as removing the contact will displace the seal.

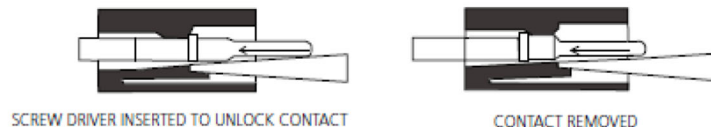


Figure 7: Contact Removal