

Service Bulletin

Title: SBA119-25-02; Leonardo A119 Air Conditioner Condenser Wiring Blower Motor Connectors

Revision	Issue Date	Checked by	Approved by
NC	17-FEB-2025	T. Wiklund	D. Sirbaugh
A	02-MAY-2025		

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

Compliance: Optional

Effectivity: Leonardo Helicopter models A119 and AW119 MKII Equipped with the Air Comm Corporation A119-212-8 thru -11, A119-216-8 thru -11, and A119-218-1 thru -3 air conditioner system

Reference: FAA / STC # SR00463DE, Leonardo A119, AW119 MKII 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 motor connectors used in the Air Comm Corporation Condenser Blower Assembly A119-7006-2 are now obsolete and have been replaced with Deutsch connectors ES59112 as built per A119-7006-3, shown in Figure 1.

When replacing the top-level Condenser Blower Assembly P/N A119-7006-2 with the replacement P/N A119-7006-3, it is necessary to replace the aircraft side connector with new P/N ES59112-13. No further changes are then required.

When replacing only one of the blower sub-assemblies P/N S-6501EC-3 with new P/N S-6501EC-4 (shown in Figure 2), it is necessary to update the second blower with connector P/N ES59112-14, as well as the two aircraft-side connectors with new P/N ES59112-13. This is required to ensure full assembly configuration control and the dual blower assembly must be part-marked accordingly.

If only performing a connector replacement, replace the obsolete Molex connectors with the Deutsch connectors on both blower sub-assemblies to convert the Condenser Blower assembly from P/N A119-7006-2 to P/N A119-7006-3. The assembly must be part-marked accordingly.

Revision History:

Revision NC is the initial release, no changes.

Revision A adds instruction for performing connector replacement only

Require Material for Ordering:

ES59112-13 Deutsch Plug Assembly – Socket Contacts included (QTY 2)

ES59112-14 Deutsch Receptacle Assy – Pin Contacts included (QTY 1 or 2)

Optional Materials for Ordering:

ES59112-34 Socket Contacts (Spares ES59112-13)

ES59112-35 Pin Contact (Spares for ES59112-14)

Procedure:

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

1. If the top-level assembly P/N A119-7006-2 was replaced with P/N A119-7006-3, or if both blower assemblies P/N S-6501EC-3 were replaced with P/N S-6501EC-4, skip to step 9. Otherwise, follow steps 1-8 to install ES59112-14 Deutsch Receptacles on any blower sub-assembly not being replaced to convert it to P/N S-6501EC-4.
2. Remove the Molex connector from any blower motor not being replaced by trimming the wires as close as possible to the connector to maintain the wire length.
3. Strip the wire insulation back between 0.222 and 0.284 inch [Reference DEUTSCH Field Maintenance Crimp Tool HDT-48-00].
4. Crimp a pin contact ES59112-35 to each of the striped wires using Deutsch tool HDT- 48-00 crimping tool.
5. 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.
6. Ensure contacts are locked in per Figure 4 and engage the wedge lock.
7. Locate the P/N marking on any converted blower motor assembly and add with indelible ink "SBA119-25-02".
8. Locate P/N marking on the condenser assembly and add with indelible ink "SBA119-25-02".
9. After installing or converting both blower assemblies to P/N S-6501EC-4, locate existing Molex Connectors on the aircraft-side that need to be replaced. The new aircraft-side connectors ES59112-13 will plug into the mating connectors of the condenser assembly A119-7006-3, shown in Figure 1.
10. Trim wires ACCB5A12, ACCB5C14N, ACCB6A12, and ACCB6C14N at existing connectors to maintain wire length within acceptable value.

11. Strip the wire insulation back between 0.222 and 0.284 inch [Reference DEUTSCH Field Maintenance Crimp Tool HDT-48-00].
12. Crimp a socket contact ES59112-34 to each of the wires using Deutsch tool HDT-48-00 crimping tool.
13. Insert wire ACCB5A12 into Pin 1 and wire ACCB5C14N into Pin 2 of first connector ES59112-13 as shown in Figure 3 (Contact insertion instructions are shown in Figure 4).
14. Insert wire ACCB6A12 into Pin 1 and wire ACCB6C14N into Pin 2 of second connector ES59112-13 as shown in Figure 3 (Contact insertion instructions are shown in Figure 4).
15. Ensure contacts are locked in per Figure 4.
16. Reconnect the Condenser Blower Assembly as shown in Figure 3.

Note: It is not necessary to part mark the assembly with the service bulletin number if installing a new A119-7006-3.

Note: If necessary, contact removal instructions are shown in Figure 5

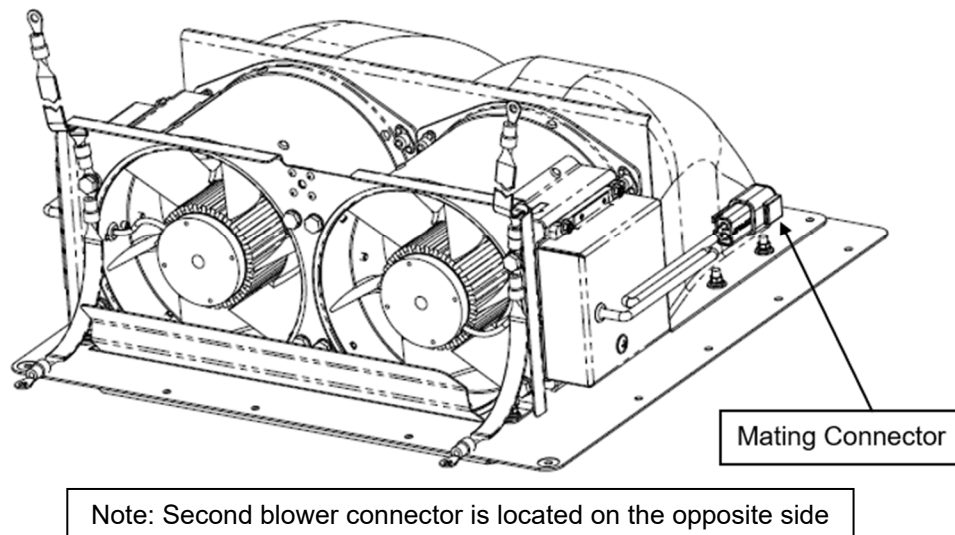


Figure 1: Condenser Blower A119-7006-3

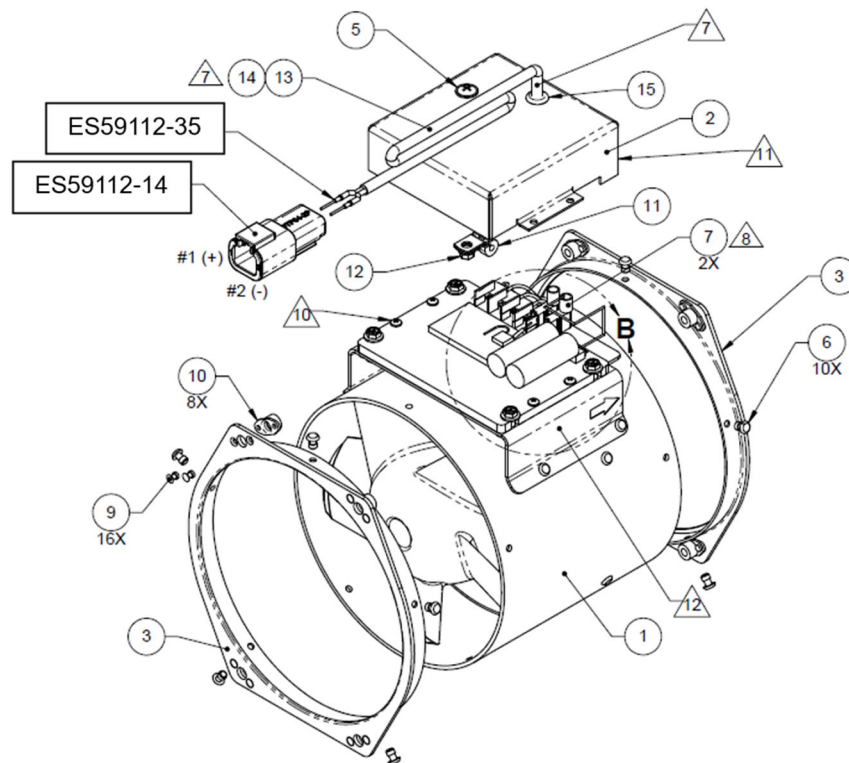


Figure 2: Blower Assembly S-6501EC-4

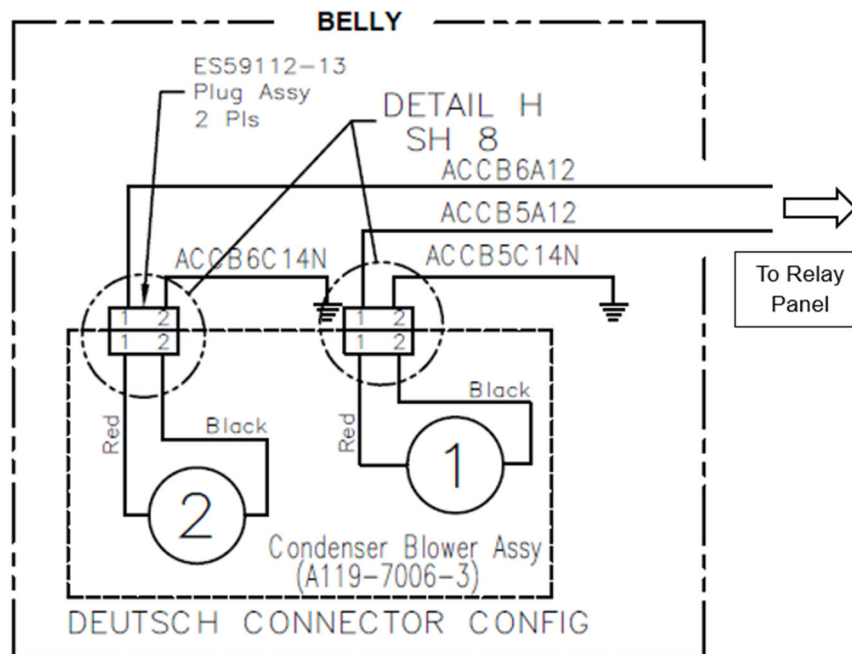
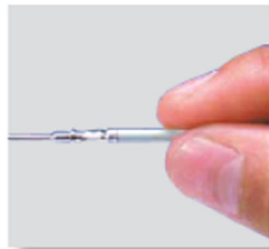


Figure 3: Deutsch Connector Configuration

Assembly Contact Insertion (DTM, DT, DTP)



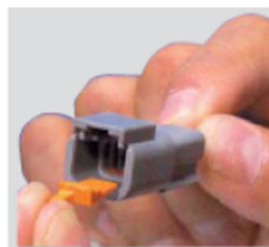
1. Grasp crimped contact approximately 1.0" (25.4mm) behind the contact barrel.



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.

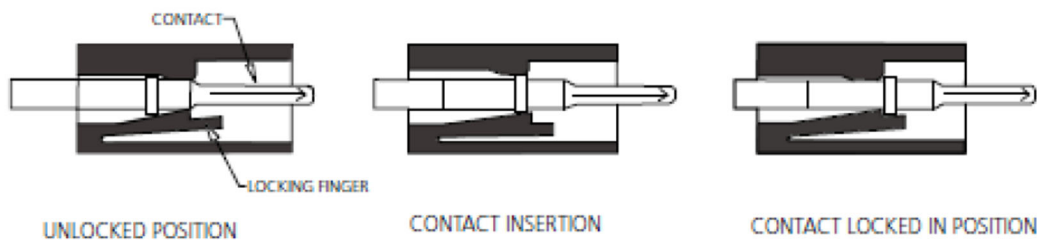
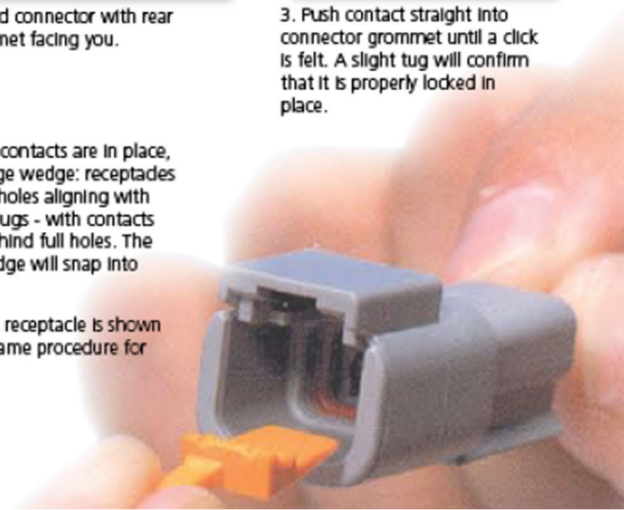
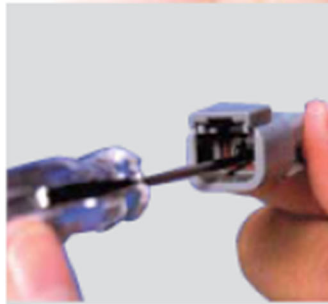


Figure 4: Contact Insertion

Contact Removal



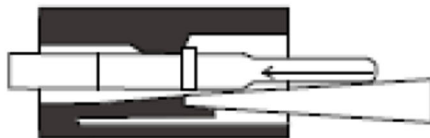
1. Remove orange wedge using needlenose pliers to pull wedge straight out.



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.



SCREW DRIVER INSERTED TO UNLOCK CONTACT



CONTACT REMOVED

Figure 5: Contact Removal