

BOMBARDIER

Toronto (de Havilland)

PROPRIETARY INFORMATION

PPS 9.38

PRODUCTION PROCESS STANDARD

Assembly of Series 1750 Modular Connectors

- Issue 3
- This standard supersedes PPS 9.38, Issue 2.
 - Vertical lines in the left hand margin indicate changes over the previous issue.
 - Direct PPS related questions to PPS.Group@aero.bombardier.com or (416) 375-4365.
 - This PPS is effective as of the distribution date.

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Table of Contents

Sections	Page
1 Scope	3
2 Hazardous Materials	3
3 References	3
4 Materials and Equipment	3
4.1 Materials	3
4.2 Equipment	4
5 Procedure	4
5.1 Preparation of Wires	4
5.2 Crimping of Contacts	4
5.3 Insertion of Contacts into Modules	4
5.4 Extraction of Contacts from Modules	5
5.5 Module Insertion	5
5.6 Module Extraction	6
6 Requirements	6
7 Safety Precautions	6
8 Personnel Requirements	6
Figures	
Figure 1 - General Description of a 1750 Series Modular Connector	4

1 Scope

- 1.1 This Production Process Standard (PPS) specifies the procedure and requirements for assembly of series 1750 modular connectors.
 - 1.1.1 This PPS complements the engineering drawings that specify its use as an authorized instruction and the procedure specified must be followed to ensure compliance with all applicable specifications. In general, if this PPS conflicts with the engineering drawing, follow the engineering drawing. The requirements specified in this PPS are necessary to fulfil the engineering design and reliability objectives.
 - 1.1.2 Refer to [PPS 13.26](#) for the subcontractor provisions applicable to this PPS.
 - 1.1.3 Procedure or requirements specified in a Bombardier BAPS, MPS, LES or P. Spec. **do not** supersede the procedure or requirements specified in this PPS. Similarly, the procedure and requirements specified in this PPS are not applicable when use of a BAPS, MPS, LES or P. Spec. is specified.

2 Hazardous Materials

- 2.1 Before receipt at Bombardier Turboprops (de Havilland), all materials must be approved and assigned Material Safety Data Sheet (MSDS) numbers by the Bombardier Turboprops (de Havilland) Environment, Health and Safety Department. Refer to the manufacturer's MSDS for specific safety data on any of the materials specified in this PPS. If the MSDS is not available, contact the Bombardier Turboprops (de Havilland) Environment, Health and Safety Department.

3 References

- 3.1 [PPS 9.24](#) - Wire and Cable Stripping.
- 3.2 [PPS 9.36](#) - Manual crimping of Size 12 - 22 Electrical Contacts.
- 3.3 [PPS 13.26](#) - General Subcontractor Provisions.

4 Materials and Equipment

4.1 Materials

- 4.1.1 AIR LB modular connectors, 1750 series, as specified on the engineering drawing or wiring list. Refer to for a general description of a 1750 series modular connector.
- 4.1.2 Size 22 contacts, AIR LB #00110410002.

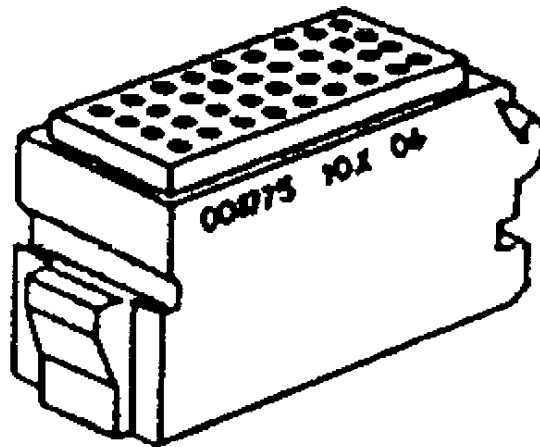


Figure 1 - General Description of a 1750 Series Modular Connector

4.2 Equipment

- 4.2.1 M22520/2-01 crimping tool with an AIR LB K 673 locator.
- 4.2.2 MIL-I-81969/14-01 plastic contact insertion/extraction tool.

5 Procedure

5.1 Preparation of Wires

- 5.1.1 Strip wires before crimping according to [PPS 9.24](#).

5.2 Crimping of Contacts

- 5.2.1 Crimp contacts using an M22520/2-01 crimping tool with an AIR LB K 673 locator according to [PPS 9.36](#).

5.3 Insertion of Contacts into Modules

- 5.3.1 Insert contacts into modules as follows:

- Step 1. Place the wire in the groove of the insertion tool (coloured end) and pull the wire back until the tip of the tool touches the contact shoulder.
- Step 2. Insert the contact straight into the insulator until the contact snaps into position. Use firm, even pressure when inserting the contact.
- Step 3. Withdraw the insertion tool by pulling straight back out of the cavity.

Step 4. Pull back gently on the wire of the inserted contact to verify proper contact seating.

Step 5. Insert the remaining contacts by completing one row at a time, always starting at one end.

5.4 Extraction of Contacts from Modules

5.4.1 If necessary, extract contacts from modules as follows:

Step 1. Insert the wire of the contact to be extracted into the groove of the extraction tool (white end).

Step 2. Gently slide the tool down the wire into the module until a firm stop is sensed. At this point the retention clips will have been released.

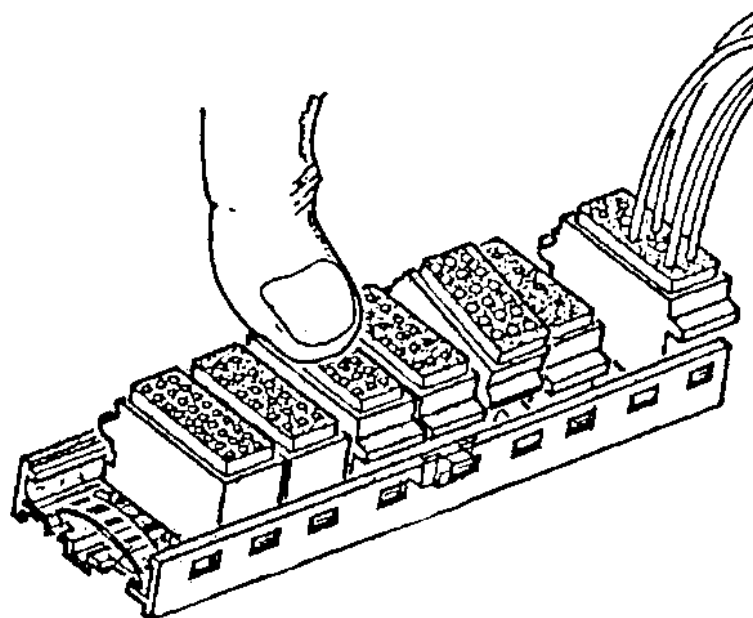
Step 3. Press the contact wire against the body of the tool and pull the tool, wire and contact out of the module.

5.5 Module Insertion

5.5.1 Insert modules into the rail as follows:

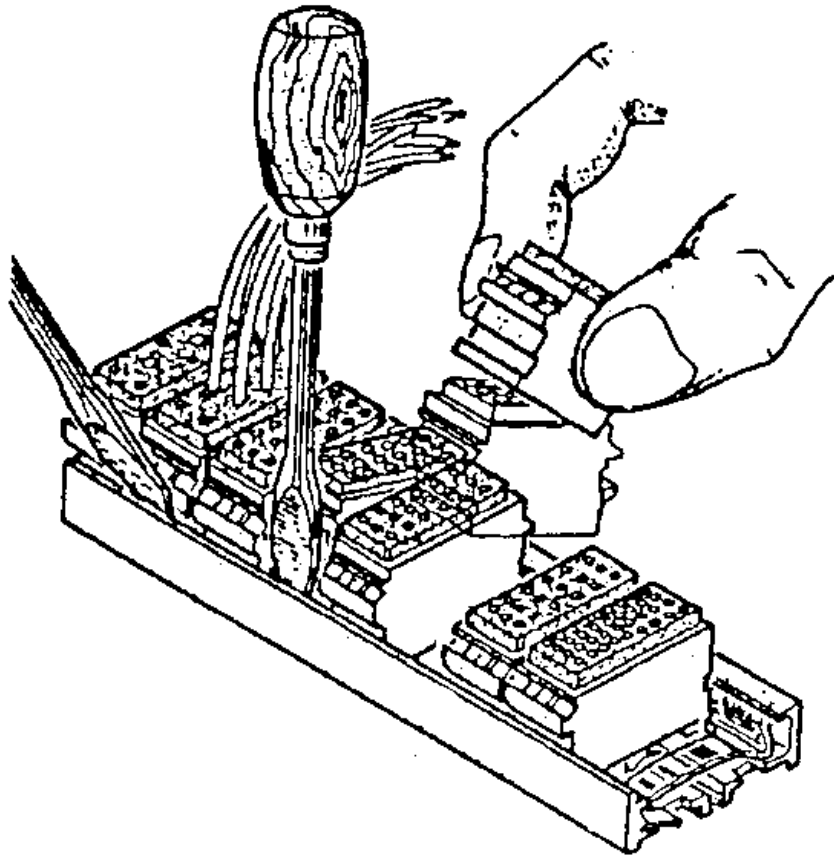
Step 1. Slip the module tongue into the lateral slot in the rail.

Step 2. Exert sufficient pressure to snap the module into position on the spring mounting as shown below:



5.6 Module Extraction

- 5.6.1 To extract a module, position the blade of a flat head screwdriver between the rail and the module on the side opposite the tongue/slot and exert a little pressure until the module unlocks from the spring mounting as shown below:



6 Requirements

- 6.1 Contacts shall be crimped to wires according to [PPS 9.36](#)

7 Safety Precautions

- 7.1 The procedure specified herein presents no particular safety precautions when performed according to standard plant safety precautions.

8 Personnel Requirements

- 8.1 Personnel responsible for assembly of series 1750 modular connectors must have a good working knowledge of the procedure and requirements as specified herein and must have exhibited their familiarity to their supervisor.