

# Process Specification for the Manufacture of Electrical Cables, Wiring, and Harnesses

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**Engineering Directorate**

**Avionics Systems Division**



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**Lyndon B. Johnson Space Center**  
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<b>REVISIONS</b>		
<b>VERSION</b>	<b>CHANGES</b>	<b>DATE</b>
Baseline	Original version	4/16/96
A	Changed applicable document from IPC-DW426 to NAS 5300.4(3G-1)	7/7/97
B	Changed applicable document to NASA-STD-8739.4 and reformatted per new PRC template	8/18/98
C	Changed referenced document from ND-ADM-005 to NT1-ADM-005	8/6/99
D	Changed OPR to EV5. Changed note in footer. Modified Sections 4.0, 7.0 and 9.0.	7/28/05
E	Updated Sections 2.0, 4.0, 5.0, 6.0, 7.0, 8.0 and 9.0.	3/19/20

**1.0 SCOPE**

This process specification establishes the engineering requirements for the manufacture of electronic cables, wiring, and harnesses used in flight hardware manufactured by or for JSC.

**2.0 APPLICABILITY**

This specification shall be applicable per NASA-STD-8739.6 whenever the manufacture of electronic cables, wiring, or harnesses is invoked per section 3.0, "Usage".

Note 1: For hardware manufactured offsite from NASA JSC, the vendor shall use its own internal work instructions for implementing the process requirements as stated in the pertinent sections of NASA-STD-8739.6, latest approved revision.

Note 2: The remaining portions of this document are not applicable for hardware manufactured offsite from NASA JSC.

Note 3: This exclusion does not apply to the NASA JSC Support Contractors.

Note 4: All electronic cables, wiring, and harnesses manufacturing shall comply with sections relevant to the subject matter in NASA-STD 8739.6, latest approved revision.

**3.0 USAGE**

This process specification shall be called out on the engineering drawing using a drawing note as follows:

**MANUFACTURE HARNESS PER NASA/JSC PRC 7003**

**4.0 REFERENCES**

NASA-STD-8739.6	"Implementation Requirements for NASA Workmanship Standards"
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## **5.0 MATERIAL REQUIREMENTS**

As specified in sections applicable to this subject matter in NASA-STD-8739.6, latest approved revision.

## **6.0 PROCESS REQUIREMENTS**

Manufacture of electronic cables, wiring, or harnesses shall be performed according to the requirements of NASA-STD-8739.6, latest approved revision.

## **7.0 PROCESS QUALIFICATION**

For work performed within the Avionic Systems Division, written procedures shall be used and they shall consist of Detailed Process Instructions (DPIs) selected for use from the DPI-7003 series of work instructions. The DPI-7003 series of work instructions shall be validated on non-flight hardware. No untested DPI shall be used to manufacture flight hardware.

## **8.0 PROCESS VERIFICATION**

Verification that the cables, wiring, or harnesses have been manufactured correctly shall be accomplished according to the requirements of NASA-STD-8739.6, latest approved revision.

## **9.0 TRAINING AND CERTIFICATION OF PERSONNEL**

All electronic cable, wiring, or harness manufacture shall be performed by personnel who have been trained and certified as directed by NASA-STD-8739.6, latest approved revision.

## **10.0 DEFINITIONS**

None.