PIA Technical Standard TS-112 v1.0
Parachute Industry Association Publications
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Harness/Container – AAD Installation Test Protocol

SCOPE:
The intent of TS-112 is to provide a recommended test matrix for any Harness/Container manufacturer (TSOA holder) to complete in order to authorize installations of specific AAD's into their products. This series of 36 simulated best practice, mid range and worse case scenarios of rigging and malfunction possibilities is only a basic vehicle to accomplish primary confidence levels of interface between the AAD and the standard function of the TSO'ed components of the harness container system and reserve parachute.
All tests should be done with full cooperation between the Harness/Container manufacturer and the AAD manufacturer. Completion of the TS-112 matrix by the Harness/Container manufacturer in no way approves function of the AAD and is not intended to be used by the AAD manufacture to qualify/validate any AAD.
Below is an outline of the test preparations and PASS/FAIL criteria.

AAD Activation Test: 3 consecutive tests to pass with the same cutter configuration

Preparations: All loops for testing must <u>not</u> be silicone treated
            All grommets must be free of any lubricant as oil or silicone, wipe off
            with isopropanol or equivalent

            Harness/Container straped to dummy, horizontal position on floor

PASS/FAIL CRITERIA

PASS 1   **NO DELAY**

PASS 2   **Slight delay (less than)<0.25sec (passed)**

FAIL 1   **Hesitation (greater than) >0.25sec (failed)**

FAIL 2   **Short launch of PC (less than) <50cm Bridle extraction (failed)**

FAIL 3   **Container lock up**

ALL 36 TESTS MUST PASS

TS-112 HARNESS/CONTAINER MANUFACTURER TEST MATRIX

REQUIRED TEST

	Model Size	Serial #	Res Par Size/Type	Main Size/Type	AAD PC LAUNCH EMPTY MAIN CONTAINER			AAD PC LAUNCH FULL MAIN CONTAINER			Date
					Ideal/MFR Recommended	+.75" /19mm	+1"/25.4mm	Ideal/MFR Recommended	+.75" /19mm	+1"/25.4mm	
H/C MANUFACTURER SMALLEST MODEL SIZE					1 / 1	1	1	1 / 1	1	1	
					2 / 2	2	2	2 / 2	2	2	
					3 / 3	3	3	3 / 3	3	3	

REQUIRED TEST

	Model Size	Serial #	Res Par Size/Type	Main Size/Type	AAD PC LAUNCH EMPTY MAIN CONTAINER			AAD PC LAUNCH FULL MAIN CONTAINER			Date
					Ideal/MFR Recommended	+.75" /19mm	+1"/25.4mm	Ideal/MFR Recommended	+.75" /19mm	+1"/25.4mm	
H/C MANUFACTURER LARGEST MODEL SIZE					1 / 1	1	1	1 / 1	1	1	
					2 / 2	2	2	2 / 2	2	2	
					3 / 3	3	3	3 / 3	3	3	

OPTIONAL TEST

	Model Size	Serial #	Res Par Size/Type	Main Size/Type	AAD PC LAUNCH EMPTY MAIN CONTAINER			AAD PC LAUNCH FULL MAIN CONTAINER			Date
					Ideal/MFR Recommended	+.75" /19mm	+1"/25.4mm	Ideal/MFR Recommended	+.75" /19mm	+1"/25.4mm	
H/C MANUFACTURER LG MID RANGE MODEL SIZE					1 / 1	1	1	1 / 1	1	1	
					2 / 2	2	2	2 / 2	2	2	
					3 / 3	3	3	3 / 3	3	3	

OPTIONAL TEST

	Model Size	Serial #	Res Par Size/Type	Main Size/Type	AAD PC LAUNCH EMPTY MAIN CONTAINER			AAD PC LAUNCH FULL MAIN CONTAINER			Date
					Ideal/MFR Recommended	+.75" /19mm	+1"/25.4mm	Ideal/MFR Recommended	+.75" /19mm	+1"/25.4mm	
H/C MANUFACTURER SM MID RANGE MODEL SIZE					1 / 1	1	1	1 / 1	1	1	
					2 / 2	2	2	2 / 2	2	2	
					3 / 3	3	3	3 / 3	3	3	