Requirements and Test Specification - Self-Sealing Stem Bolt			
Type: Requirement & Test Specification	No.: 176-3049211-02	Version: 1	Page: 1of 3

1 Purpose

This document defines the hardware and software requirements as well as test procedures required for verification of a self-sealing stem bolt. As we know nothing could be built without bolts. They are a basic component of reverse-ratcheting routing planers.

2 References

2.1 Internal References

- Self-sealing stem bolt on memory-alpha.fandom.com (link)
- Self-sealing stem bolt on memory-beta.fandom.com (link)

3 System Requirements

3.1 User Interface

REQ 1. All system shall have an interface that allows users (operator, maintainer, engineer) to access the system directly.

Language and Labels

REQ 1.1. All labeling shall be in English or Andorian.

REQ 1.2. The part number, revision and serial number should be visible on the outside of the self-sealing stem bolt.

User Controller Parameters

REQ 1.3. The user shall be able to select the magnetic flux capacitance flow through the self-sealing stem bolt by increments of 5 MEV and a range between 0 MeV and 1 TeV.

REQ 1.4. The user shall be able to read the current magnetic flux capacitance flow through the self-sealing stem bolt under the following light conditions: full sunlight, dusk, dawn, shadow, indoors, luminescent light, complete darkness.

REQ 1.5. The self-sealing stem bolt shall have a debug interface that allows authorized users access to low level functionality and operational logs.

Error Messages

REQ 1.6. The self-sealing stem bolt shall have an audio-visual malfunction indicator.

REQ 1.7. The self-sealing stem bolt shall output detailed error messages via the debug interface in the case of an error.

3.2 Modes of Operation

REQ 2. The self-sealing stem bolt shall have an operational mode and a maintenance mode.

Installation & Startup
Operational Mode

4 System Verification

This document describes the system verification for self-sealing stem bolt. Unfortunately self-sealing stem bolts are mysterious devices of unknown use and origin. The field of application of the self-sealing stem bolts is shrouded in mystery.

4.1 Objective

Even though the self-sealing stem bolt is a mysterious device, this document outlines a procedure to determine how one can be tested.

4.2 Required Equipment

- standard issue Tricorder
- 20T NMR spectrometer
- quantum combobulator

4.3 Setup and Configuration

No special setup and configuration is required beyond ensuring calibration of Tricorder, spectrometer and combobulator.

4.4 Requirements Tested

Requirements from Document Number: Reference the document where the requirements are coming from here
S3.1.1, S3.2.2, S3.2.3, S3.2.4

4.4.1 Procedure and Test Worksheet

Stardate Test Performed	
Starbase Test Performed	
Test System Serial #	
Test Computer Serial #	
Functional self-sealing stem bolt	
Defective self-sealing stem bolt	

Step	Action	Verification	P/F	Result, Notes
1	Ensure indicator lights are working by pressing and holding down the on button for 10 seconds.	All indicator lights (red, gree, blue) flash first one after another twice and then all together 3 times.		
2	Ensure correct composition of self-sealing stem bolt by inserting it into a spectrometer	The stem bolt should consist of 80% mixed duranium, aluminum, and steel alloys, 11% electrically modulated ceramic, and 9% thermally stabilized plastic.		
3	Insert self-stealing stem bolt in quantum combobulator and verify left and right-handed quantum flux capacitance	The measured flux capacitance on the left hand should not exceed an output conductance of 17.8 $\pm$ 2 millimohs. The measured flux capacitance on the right hand should not exceed an output conductance of 3.2 $\pm$ 1 nanomohs.		
4	Verify the positive and negative ion flow in upper and lower unilateral phase detractor alignment assemblies when applying a 750V with a phase offset of 5403 Furmans.	The negative ion flow in the upper unilateral phase detractor alignment assembly does not exceed 56 Mol/Angstrom and 23 Mol/Anstrom in the lower alignment assembly. The measured flux capacitance on the right hand should not exceed an output conductance of 3.2 $\pm$ 1 nanomohs.		

Step	Action	Verification	P/F	Result, Notes
5	Verify the positive and negative ion flow in upper and lower unilateral phase detractor alignment assemblies when applying a 750V with a phase offset of 14664 Furmans.	The negative ion flow in the upper unilateral phase detractor alignment assembly does not exceed 104 Mol/Angstrom and 72 Mol/Anstrom in the lower alignment assembly. The measured flux capacitance on the right hand should not exceed an output conductance of 6.32 $\pm$ 2 nanomohs.		

Summary Report Results:

Additional Comments:

Completed by: _____ Date: _____

Lieutenant junior grade Nog
Junior Engineer

Result: Pass ☐ Fail ☐ Pass with limitations ☐

Approved By: _____ Date: _____

Lieutenant commander Geordi La Forge
Chief Engineer

5 Document Revision History

Ver	Change Description	Author
01	Release version 1 of self-sealing stem bolt	Nog