

DOCUMENT TITLE: **ACQUITY SAMPLE ORGANIZER TEST PROCEDURE**

SYSTEM/ASSEMBLY NAME: **ACQUITY SAMPLE ORGANIZER**

PART NUMBER AFFECTED **186015020, 800000196, 186015021, 800000438, 186015020IVD**

TEST EQUIPMENT NAME: **SAMPLE ORGANIZER FINAL TEST**

TEST EQUIPMENT NUMBER: **TE82865**

TEST SOFTWARE:



AUTHOR(S): **TIM NORTON**

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REVISED BY: **JAMES STORS**

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EQUIPMENT REQUIRED

Quantity	Part Number	Description
1	999028658	ACQUITY Sample Organizer Test Fixture
1	999028997	Sensor Beam Target for Elevator
1	999037544	Borescope Mount Assembly
1	999028778	ATS/ETS Shuttle Adjustment Cap Gage
1	999030668	Transfer Access Test Cover
1	999030669	Side Panel Test Cover
20	999029491	384 Wellplate, Weighted
21	289001128 or 289007707	Assy, Storage Shelf, Elevator
1	279000778	Assy, Transfer Mechanism, Autosampler
2	WAT413410	Screw, Metric SKT CAP M4X10

REFERENCE DOCUMENTATION

Document #	Description
735001199	Shuttle Tester Engineering Test Specification and Procedure
WAT046538	Generic Electrical Safety Test Procedure
721012107	ACQUITY UPLC Sample Manager FL and Organizer

DEFINITIONS AND ABBREVIATIONS

Term	Definition
ETS	Elevator Transfer Shuttle
ATS	Auto-Sampler Transfer Shuttle
IVD	In Vitro Diagnostics
LED	Light-Emitting Diode
PSI	Pounds Per Square Inch
°C	Degrees Celsius
PC	Personal Computer
UUT	Unit Under Test

TEST SPECIFICATIONS AND TRACEABILITY MATRIX

Test #	Test Specification & Condition	Acceptance criteria	Reference
1	Electrical Safety Test	Per WAT046538	Production Support Check
2	Firmware Download	Firmware Downloads without errors	Production Support Check
3	Startup Initialization	Initialize without alarms	Production Support Check
4	Save Serial Number	Action completes without errors	Production Support Check
5	<u>Test Software Jumpers</u> 186015020, 800000196, 186015020IVD 186015021, 800000438	= 128 = 129	Production Support Check
6	Sample Compartment Illumination	Operator Inspection All Lights = On	Production Support Check
7	Status LEDs	Run LED = On Status LED = Blinking	Production Support Check
8	Test Fans	Operator Inspection Fans = On	Production Support Check
9	Test Door Sensor	<u>Operator Interactive</u> <u>Register Read</u> Door Open 0x5000A bit3 = 0 Door Closed 0x5000A bit3 = 1	Production Support Check
10	Test Plate/Shelf Optical Sensors	<u>Operator Interactive</u> - Configure Fiber Optic Amplifier per instructions - Confirm location of transmit fiber - Confirm location of receive fiber	Production Support Check
11	Setup Fiber Optic Sensors	<u>Operator Interactive</u> - Configure Fiber Optic Amplifier per instructions - Align Fibers per instructions - Record Energy ≥ 60	Production Support Check
12	Test Z-Axis Sensors	<u>Operator Interactive</u> <u>Register Read</u> Move Z-Axis Away 0x500009 bit6 = 0 Move Z-Axis Home 0x500009 bit7 = 1	Production Support Check

13	Adjust Pressure Regulator	Manual adjustment set to 75 PSI	Production Support Check
14	Test Air Pressure Decay	Decay ≤ 1.2 PSI (5 minute)	721012107, Section 6.8.22.
15	Adjust Hardstops and Sensors	Manual adjustment	Production Support Check
16	ATS Transfer Speed (home/away)	1 second $\leq$ Time $\leq$ 1.5 second	721012107, Section 6.8.23.
17	ATS Transfer Speed (away/home)	1 second $\leq$ Time $\leq$ 1.5 second	721012107, Section 6.8.24.
18	ETS Transfer Speed (home/away)	1 second $\leq$ Time $\leq$ 1.5 second	721012107, Section 6.8.25.
19	ETS Transfer Speed (away/home)	1 second $\leq$ Time $\leq$ 1.5 second	721012107, Section 6.8.26.
20	Cooling Test (Slope 20°C to 10°C)	-5°C/minute $<$ slope $\leq$ -0.38°C/min.	721012107, Section 6.8.27.
21	Stabilize Temperature	Wait 10 minutes for Sample Compartment to settle at 22°C	Production Support Check
22	Heating Test (Slope 24°C to 34°C)	1.52 C/min. $\leq$ slope $<$ 5 °C/min.	721012107, Section 6.8.28.
23	Multi-Plate Transfer Test	50 transfer cycles with no errors	721012107, Section 6.8.29.
24	Home ETS	Action completes without errors	Production Support Check

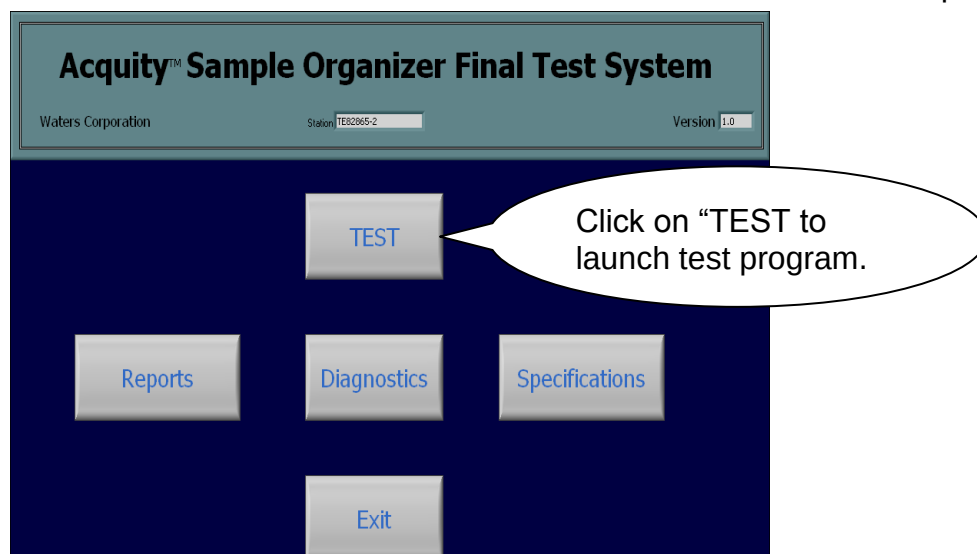
TEST PROCEDURE

1. TESTER SETUP

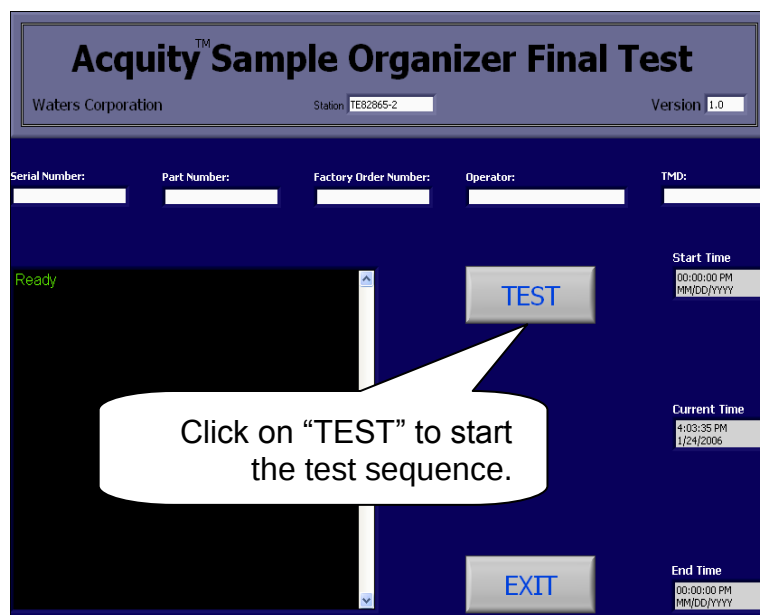
- 1.1. Power up PC and Monitor.
- 1.2. Double-click the “Acquity Sample ORGANIZER Final Test” desktop icon.

2. TEST

- 2.1. Attach the ACQUITY Sample Organizer Test Fixture (Tool #999028658) to right side of the UUT.
- 2.2. Slide the ATS/ETS Shuttle Adjustment Cap Gage (279000778) through hole and mount to ATS support bracket with three (3) Metric SKT CAP M4X10 Screws (WAT413410). Connect air lines (color match) and connect both sensor cables.
- 2.3. From the main menu click the “TEST” button to launch the test sequence.



- 2.4. Click the “Test” button.



- 2.5. Follow on-screen instructions.