

WATERS CORPORATION
ENGINEERING TEST SPECIFICATION AND PROCEDURE
COMPANY CONFIDENTIAL

SYSTEM/ASSEMBLY NAME: **ACQUITY CPSM SAMPLE MANAGERS**

PART NUMBER AFFECTED: **SEE TABLE, PAGE 2, PART NUMBERS AFFECTED**

TEST EQUIPMENT NAME: **ACQUITY CPSM FINAL TEST SYSTEM**

TEST EQUIPMENT NUMBER: **TE83064**

DOCUMENT NUMBER: **735002984**

TEST SOFTWARE:



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REVISED BY: **RICHARD DAVIS**

DATE: **Feb 27, 2018**

REVISION **M**

VALID IF CURRENT EFFECTIVE REVISION AND STAMPED IN RED BY DOCUMENT CONTROL OR WITH SAP-GENERATED TIME & DATE STAMP.

PART NUMBERS AFFECTED

Mfg Part Number	Refrb. Part Number	Description
186015017	800000298	Acquity H-Class FTN
186015035	800000412	Acquity UPC2 FL
186015040	800000313	Acquity H-Class FTN BIO
186015046	800000373	Acquity I-Class FTN
186015051	800000429	Acquity Veyron (APC) FTN
186015060	800000410	Acquity I-Class FL
186016012	800000442	Acquity M-Class Micro FL
186017001	800000462	Acquity ARC FTN w/heater-cooler
186017007	800000461	Acquity ARC FTN
186017011	800000472	Acquity ARC FTN BIO
186015085	800000489	Acquity H-Class FTN Plus
186015086	800000483	Acquity H-Class FTN BIO Plus
186015087	800000481	Acquity I-Class FL Plus
186015088	800000482	Acquity I-Class FTN Plus
N2971031	N/A	PKI H-Class FTN

EQUIPMENT REQUIRED

Quantity	Part Number	Description
1	186015022	Acquity TUV Detector
1	186015000	Acquity SDS 18K
1	186015043	Acquity UPLC CM-A (column manager)
1	205000898	Kit, ACQ. UPLC I-Class CM-A Tubing 2 Col
2	289006760	Assy, Cart, 9 Port CM, 18 KPSI, Dome
1	205015016	Acquity UPLC Cell, TUV
1	725000455	Switch, Ethernet, 10/100 (or equivalent – 4 port minimum)
1	405013532	Calibration Pin
2	405003460	Union, .020 – V Detail
2	186002631	384 Well Plate, 100uL Square well
1	405003743	48 Vial Plate
1	289001680	Assy, Bottle Tray
5	441000371	(or equiv) Ethernet Cable
1	CSM25MF-10	DB25 Male/Female D-Sub Molded Cable (L-COM)
1		Empower Workstation w/add-on cards per TE82854 test Station
1	TE83064	Test Box w/cables
4	CSMN9MF-10	DB9 Male/Female D-Sub Molded Cable (L-COM)
2	999038144	Weighted well plates for testing Theta belt tension
1	999034358	Gap Tool, Needle to Rotary Sample Tray

DISPOSABLES REQUIRED

Quantity	Part Number	Description
60"	WAT027-08	Tubing, .062x.040 PEEK
36"	430001054	½" Tygon Tubing (SM waste line)
A/R	405005721	Screw, Comp, HPFT
A/R	405004241	Collet, HPFT
A/R	415000786	Ferrule, PEEK, HPFT
A/R	WAT027-01	Tubing, .005 X .062 PEEK
A/R	Various	12 x 32 mm Vials and caps, from the following list:
A/R	186002457c	Amber Max Recovery Vial Kit (vials and blue preslit septum caps)
A/R	186002127	Screw Cap with Preslit Septum, Green
A/R	186002128	Screw Cap with Preslit Septum, Red
A/R	186002457	Screw Cap with Preslit Septum, White
45"	430001102	Tube, 316L, SS, 1/16OD X .010 ID, 16 RMA
30"	430001101	Tube, 316L, SS, 1/16OD X .005 ID, 16 RMA
A/R	405003608	Scr, Comp, 10-32,1/4 Hex,304 SS,Gold,FLT
A/R	410001349	Ferrule, Set, .062. Two-Piece
A/R	410001125	Ferrule, Flangeless
A/R	410001124	Screw, Flangeless, Comp, SM
A/R	700004107	Acquity UPLC Carryover Test Solutions (Carryover Challenge & Calibration Standard)
A/R	700004105	Acquity UPLC Production Test Solution (Precision and Linearity)
A/R	700004106	Acquity UPLC Blank Test Solution
.5 Liters		Needlewash & Mobile Phase solution, 5%/95% MeOH/Milli-Q H ₂ O
A/R		Fisher, Optima Methanol
1	186002350	Acquity UPLC BEH C18 1.7um 2.1x50 mm Column
1	186006049	XBridge BEH C8 2.5µm 4.6x50mm XP col

REFERENCE DOCUMENTATION

Document Number	Description
WAT046538	HI Pot and Ground Continuity Test Procedure
721001299	Acquity Common Platform Sample Manager (H-Class / Bio H-Class / Nano / I-Class / I-Class IVD / UPC ²) FTN and FL Functional Specification

1. TEST SETUP

- 1.1. See Appendices A and B for Cable and Fluidic setup details.
- 1.2. Power up the Acquity TUV Detector.
- 1.3. Power up the Acquity Solvent Delivery System.
- 1.4. Power up the Acquity Column Manager.
- 1.5. Power up PC and Monitor.
- 1.6. The test program should automatically boot-up after logging in. If it is not running, double-click the "CPSM Final Test System" desktop icon.
- 1.7. Fill vials with chemistry solutions and populate a 48 position vial plate as follows:

<u>Vial Position</u>	<u>Test</u>	<u>Solution</u>	<u>Vial/Cap color</u>
F1	Precision & Linearity	700004105	Amber/Blue
A1	Carryover (Blank)	700004106	Amber/White
A2	Carryover (Calibration)	700004107	Amber/Green
A3	Carryover (Challenge)	700004107	Amber/Red

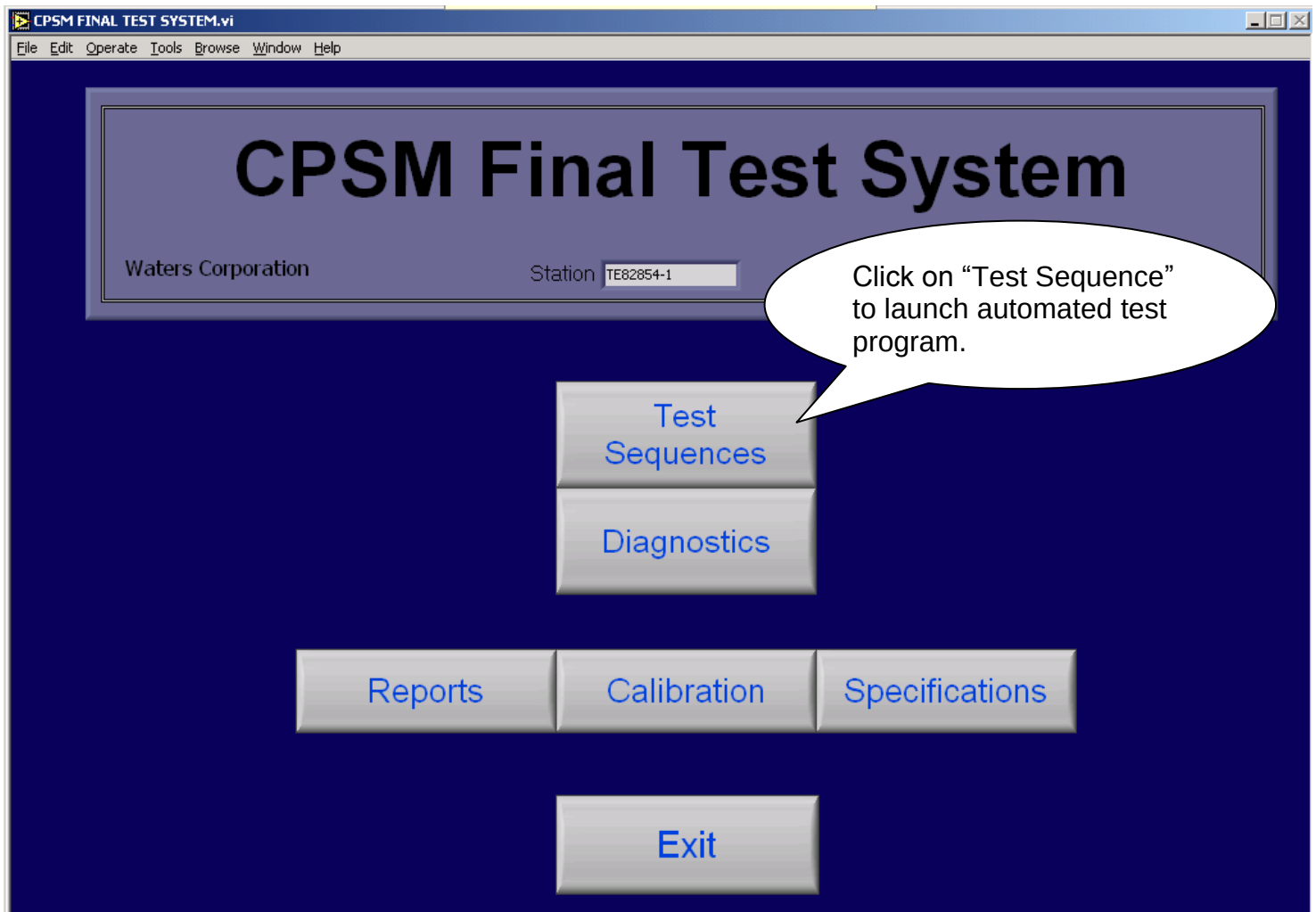
Note: Do not pre-fill more vials than can be used in a week. At the end of the week, discard all sample vials that have been pierced.

Note: Make Needlewash/ Mobile Phase solution (5/95 MeOH/Milli-Q water) in batches no larger than 1 week's supply per test station. Discard at week's end.

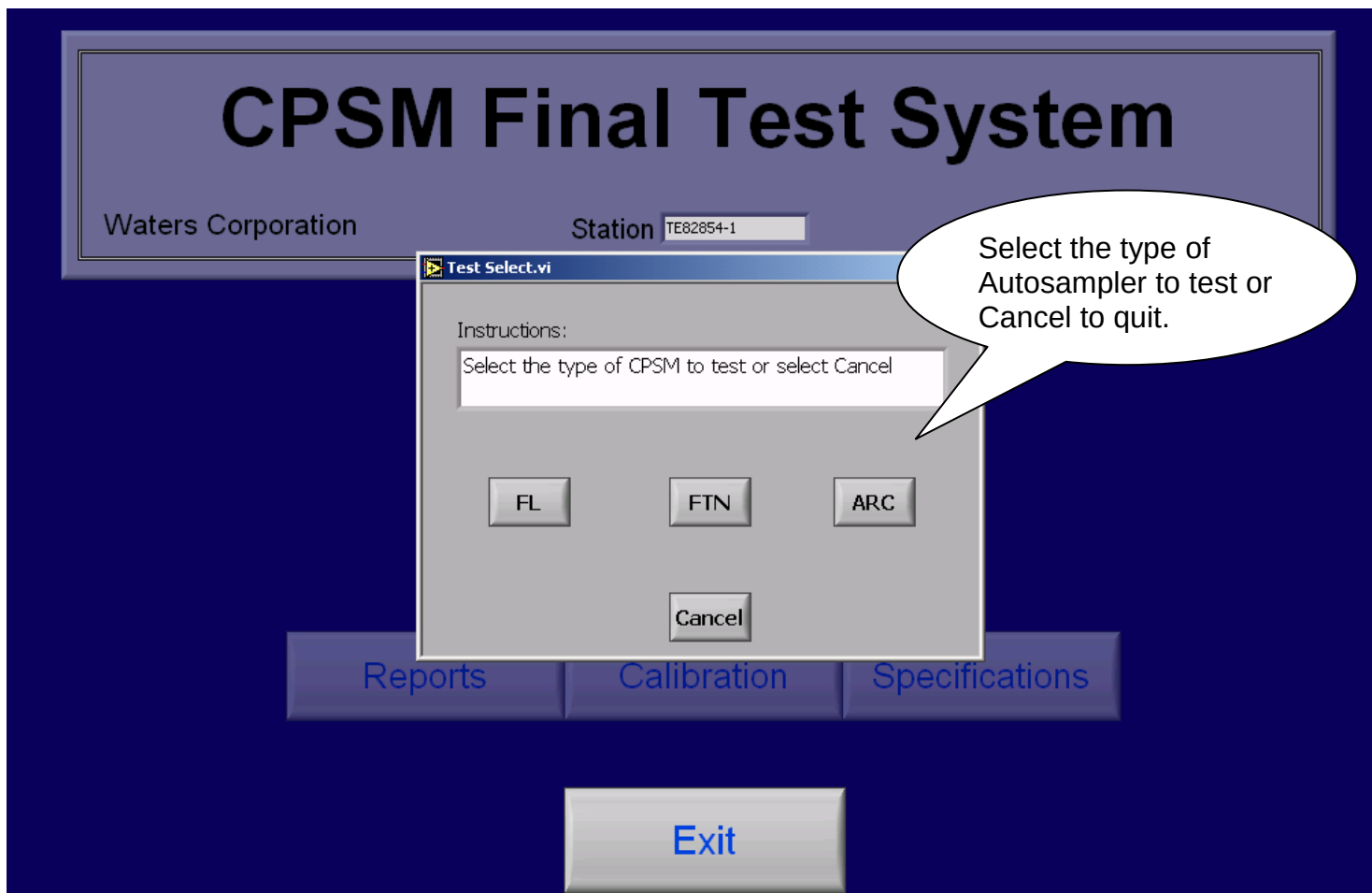
Note: Whenever either the Needlewash or the MEOH bottle is replaced the BSM must be primed. Use Console to prime the BSM prior to starting a test.

2. TEST SETUP

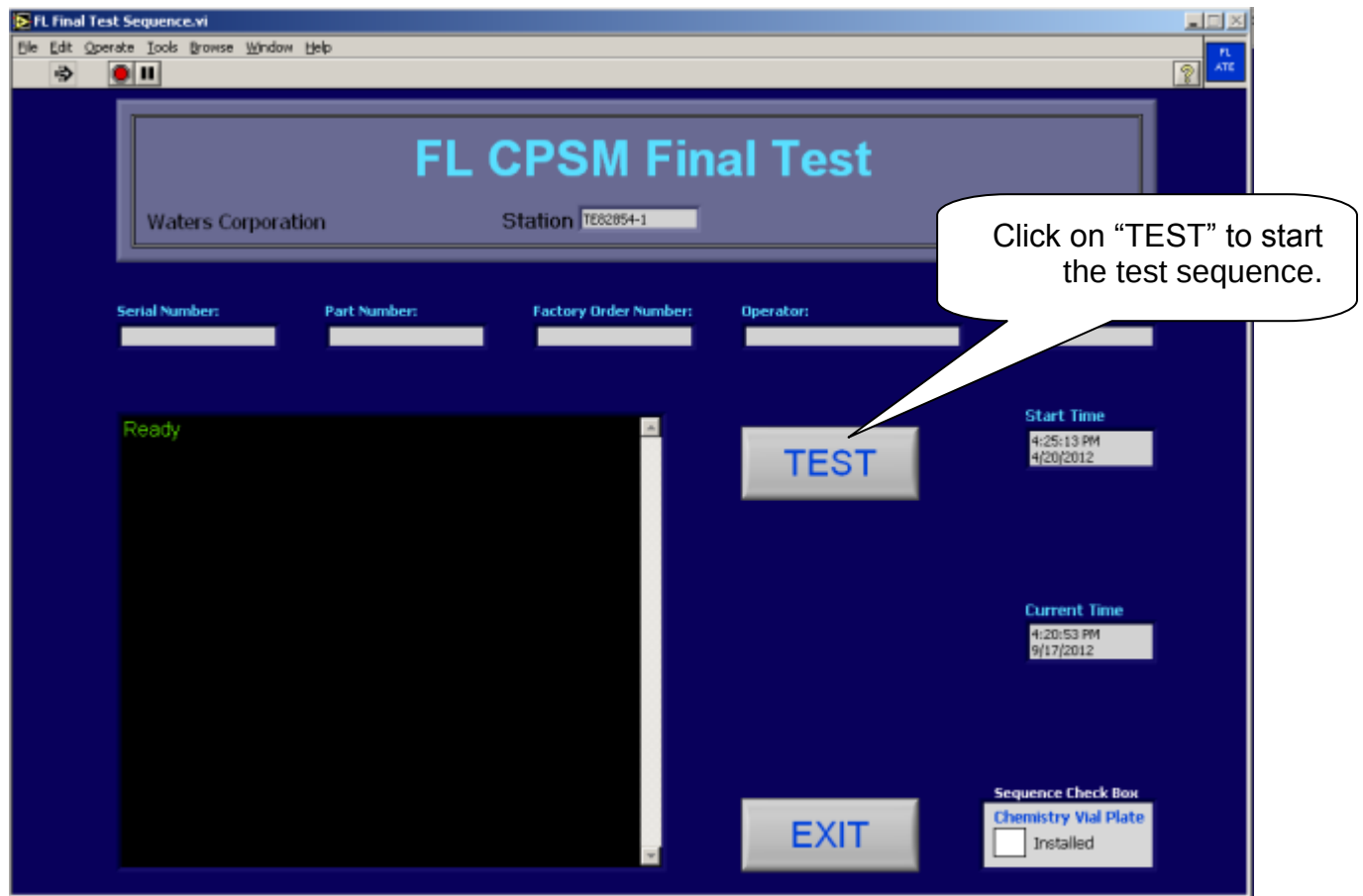
2.1. Click “Test Sequence” button



2.2. Select the type of CPSM FL, FTN or ARC



2.3. Click the “Test” button to begin testing.



2.4. Test sequence provides on time, pop-up windows with step-by-step instruction for the operator.

3. COMMON PLATFORM SAMPLE MANAGER TEST SPECIFICATIONS

Applies to Part Numbers: **186015017, 186015040, 186016012, 186015060, 186015046, 186015035, 186015051, 186015085, 186015086, 186015087, 186015088, N2971031**

TEST STEP	SPECIFICATION	721001299 REFERENCE
Electrical Safety Test	see test procedure WAT046538	PSC - GMP
Power-on Initialization	Initializes without alarms	PSC – Preparation for test
Fans	Verify Fans are ON	5.1.1.1.8. PSC - This step verifies the build process which is not validated
Firmware Download	Firmware downloads without errors	PSC – Preparation for test
Restart Initialization	Instrument initializes without Alarms	PSC – This test step runs only if firmware was downloaded. It ensures the UUT is in a ready state and is able to continue testing
Sample Compartment Door & Lights	Open door lights turn on Close door lights turn off	5.1.1.1.15 & 5.2.11.1 PSC - This step verifies the build process which is not validated
Test Event Inputs	Set Input high = Read back High Set Input low = Read back Low	5.2.10 and Control Board Performance Spec sec. 5.3 of 810000367
Test Event Outputs	Set Event High = Event Output High Set Event Low = Event Output Low	5.2.9 and Control Board Performance Spec sec. 5.4 of 810000367
Test Leak Detectors	See Table 1.0	PSC- This step verifies the build process which is not validated
Test SPI Interface	Dump HTCH = Active Preheater ID: 1 \[connected\ & Column Heater ID : 2 \[connected\]	5.2.8. PSC - Active Preheater and Column Heater chosen among variety of Waters peripherals to challenge the Interface function.
Ecord Interface	Perform writes and read back to iButton device	5.2.2.1.3.
Theta Drive Calibration	Action – Completes without errors	5.15.2.1
Tray Cal Offset	-180 to 180 Degrees	5.15.1.1
R Axis Calibration	Action – Completes without errors	5.15.2.2
R Offset	-3.00 to 3.00 mm	5.15.1.2
Z Axis Calibration	Action – Completes without errors	5.15.2.3 and 5.15.2.4
Z Offset	-3.00 to 3.00 mm	5.15.1.3
Zp Offset	-3.00 to 3.00 mm	5.15.1.4.
Needle Seal Position	48 to 68 mm	5.15.1.11
Sample Tray Select Switch	Open Door = tray 1 presented Select tray 2 = tray 2 presented	5.1.1.1.4 PSC - This step verifies the build

	Select tray 1 = tray 1 presented	process which is not validated
Check Theta Drive Belt	Action - Completes without instrument alarms	5.1.1.1.1. PSC - This step verifies the build process which is not validated
R/Theta Positioner Test	Action – Completes without errors	5.15.2.5
1 st Move Error	-0.3 to 0.3 Degrees	5.15.1.5 and 5.15.2.5.1
Zp axis	-20 to 20 Lost Steps	5.15.1.6 and 5.15.2.5.2
Z axis	-20 to 20 Lost Steps	5.15.1.7 and 5.15.2.5.3
R axis	-20 to 20 Lost Steps	5.15.1.8 and 5.15.2.5.4
Sample Cooling Test	≤ -0.6 deg C/Min	5.15.1.9. and 5.15.2.6
BOS Pump Test	Fluid flows from the Waste port	5.1.1.1.14 PSC - This step verifies the build process which is not validated
Test Pressure Transducer	0.45 to 0.55 Volts	5.15.1.10
Needlewash Prime	Action – Completes without errors	Preparation for Chemistry tests
Test Preblank Injections	≤ 10% of previous Calibration Injection Area	5.15.2.13 Preparation for Carryover testing
Chemistry Precision Area	0.0 to 0.5 %RSD	5.15.1.12 & 5.15.1.30
Chemistry Precision Height	0.0 to 0.9 %RSD	5.15.1.13 & 5.15.1.31
Chemistry Linearity R ²	0.999 to 1.000 R ²	5.15.1.14 & 5.15.1.32
Chemistry X-Intercept	-.2 to 0.2 uL	5.15.1.15 & 5.15.1.33
Methanol Purge	Action – Completes without errors	Preparation for Shipping
Air Purge	Action – Completes without errors	Preparation for Shipping
Park Inject Valve	Action – Completes without errors	Preparation for Shipping
Home Needle	Action – Completes without errors	Preparation for Shipping
Save Serial Number	Write Scanned Serial Number. Read Back Serial Number = Scanned Serial Number	Preparation for Customer Use

4. SPECIFICATIONS UNIQUE TO H-CLASS FTN SAMPLE MANAGERS

Applies to Part Numbers: **186015017, 186015040, 186015085, 186015086, N2971031**

TEST STEP	SPECIFICATION	721001299 REFERENCE
Jumper Configuration	Jumpers = 129	PSC – This step verifies the build process which is not validated
Needle Seal Calibration	Action – Completes without errors	5.15.2.8
Needle Seal Force	48 to 68 lbs/in	5.15.1.34
Methanol Prime	Action – Completes without errors	Preparation for Decay and Dynamic Leak tests
Sample Syringe Decay	-5 to 15 PSI	5.15.1.36
Dynamic Leak Test	≤ 0.5 uL/min.	5.15.1.35
Carryover	≤ 0.128 PPM (0.0032%)	5.15.1.29
Carryover (186015085 and 186015086)	≤ 0.06 PPM (0.0015%)	5.15.1.29
Chemistry Precision Area	0.0 to 0.5 %RSD	5.15.1.30

5. SPECIFICATIONS UNIQUE TO I-CLASS FTN SAMPLE MANAGERS

Applies to Part Numbers: **186015046, 186015088**

TEST STEP	SPECIFICATION	721001299 REFERENCE
Jumper Configuration	Jumpers = 133	PSC - This step verifies the build process which is not validated
Needle Seal Calibration	Action – Completes without errors	5.15.2.8
Needle Seal Force	48 to 68 lbs/in	5.15.1.34
Methanol Prime	Action – Completes without errors	Preparation for Decay and Dynamic Leak tests
Sample Syringe Decay	-5 to 15 PSI	5.15.1.36
Dynamic Leak Test	≤ 0.5 uL/min.	5.15.1.35
Carryover	≤ 0.04 PPM (0.001%)	5.15.1.28
Chemistry Precision Area	0.0 to 0.5 %RSD	5.15.1.30

6. SPECIFICATIONS UNIQUE TO FL SAMPLE MANAGERS

Applies to Part Numbers: **186015060, 186015035, 186016012, 186015087**

TEST STEP	SPECIFICATION	721001299 REFERENCE
Jumper Configuration	Jumpers = 129	PSC - This step verifies the build process which is not validated
Needle Seal Position	48 to 68 mm	5.15.1.11
Wash Syringe Prime	Action – Completes without errors	Preparation for Decay tests
Sample Syringe Prime	Action – Completes without errors	Preparation for Decay tests
Strong Wash Syringe Decay	-5 to 30 psig	5.15.1.18
Weak Wash Syringe Decay	-5 to 30 psig	5.15.1.19
Sample Syringe Decay	-5 to 40 psig	5.15.1.20
Needle Seal Decay	-5 to 50 psig	5.15.1.21
Back Pressure Regulator	135 to 165 psig	5.15.1.22
Air Sensor Calibration	7 to 10 uL	5.15.1.23
Dislodge Bubbles	Action – Completes without errors	Preparation for volume measurements
Loop Volume (186015060, 1860150350)	7.5 to 13 uL	5.15.1.24
Loop Volume (186016012)	3.0 to 7.5 uL	5.15.1.25
Needle Volume	9 to 13 uL	5.15.1.26
System Compliance (186016012)	0.0 to 2.0 uL	5.15.1.27
Carryover (186015060)	≤ 0.04 PPM (0.001%)	5.15.1.16
Carryover (186015035, 186016012)	≤ 0.128 PPM (0.0032%)	5.15.1.17
Chemistry Precision Area	0.0 to 0.5 %RSD	5.15.1.12
Empty Wash Syringes	Action – Completes without errors	Preparation for Shipping

7. SPECIFICATIONS FOR ARC SAMPLE MANAGERS

Applies to Part Numbers: **186017001, 186017007**

TEST STEP	SPECIFICATION	721007514 REFERENCE
Electrical Safety Test	see test procedure WAT046538	PSC - GMP
Power-on Initialization	Initializes without alarms	PSC – Preparation for test
Fans	Verify Fans are ON	PSC – This step verifies the build process which is not validated
Firmware Download	Firmware downloads without errors	PSC – Preparation for test
Restart Initialization	Instrument initializes without Alarms	PSC – This test step runs only if firmware was downloaded. It ensures the UUT is in a ready state and is able to continue testing
Sample Compartment Door & Lights	Open door lights turn on	5.1.1.18 and 5.2.3.1

	Close door lights turn off	PSC - This step verifies the build process which is not validated
Jumper Configuration	Jumpers = 128	PSC - This step verifies the build process which is not validated
Test Event Inputs	Set Input high = Read back High Set Input low = Read back Low	5.2.2.4.2 and Control Board Performance Spec sec. 5.3 of 810000367
Test Event Outputs	Set Event High = Event Output High Set Event Low = Event Output Low	5.2.2.4.1 and Control Board Performance Spec sec. 5.4 of 810000367
Test Leak Detectors	See Table 1.0	5.1.1.7 PSC - This step verifies the build process which is not validated
Test SPI Interface	Dump HTCH = Active Preheater ID: 1 \[connected\ & Column Heater ID : 2 \[connected\ 	5.2.2.3.3. PSC - Active Preheater and Column Heater chosen among variety of Waters peripherals to challenge the Interface function.
Ecord Interface	Perform writes and read back to iButton device	5.2.2.1 PSC – This step verifies the build process which is not validated
Theta Drive Calibration	Action – Completes without errors	5.14.2.1
Tray Cal Offset	-180 to 180 Degrees	5.14.1.1
R Axis Calibration	Action – Completes without errors	5.14.2.2
R Offset	-3.00 to 3.00 mm	5.14.1.2
Z Axis Calibration	Action – Completes without errors	5.14.2.3 and 5.14.2.4
Z Offset	-3.00 to 3.00 mm	5.14.1.3
Zp Offset	-3.00 to 3.00 mm	5.14.1.4
Sample Tray Select Switch	Open Door = tray 1 presented Select tray 2 = tray 2 presented Select tray 1 = tray 1 presented	5.1.1.5 PSC - This step verifies the build process which is not validated
Check Theta Drive Belt	Action - Completes without instrument alarms	PSC - This step verifies the build process which is not validated
R/Theta Positioner Test	Action – Completes without errors	5.14.2.5
1 st Move Error	-0.3 to 0.3 Degrees	5.14.1.5
Zp Pierce Lost Steps	-20 to 20 Lost Steps	5.14.1.6
Z Pierce Lost Steps	-20 to 20 Lost Steps	5.14.1.7
R Lost Steps	-20 to 20 Lost Steps	5.14.1.8
Sample Cooler Decay (186017001 only)	≤ -0.6 deg C/min	5.14.1.9
Methanol Prime	Action – Completes without errors	Preparation Dynamic Leak tests
BOS Pump Test	Fluid flows from the Waste port	5.1.1.16 PSC - This step verifies the build process which is not validated

Dynamic Leak Test	≤ 0.5 uL/min.	5.14.1.18
Needlewash Prime	Action – Completes without errors	Preparation for Chemistry tests
Test Preblank Injections	≤ 10% of previous Calibration Injection Area	5.15.2.13 Preparation for Carryover testing
Carryover	≤ 0.06 PPM (0.0015%)	5.15.1.12
Chemistry Precision Area	0.0 to 0.25 %RSD	5.15.1.13
Chemistry Precision Height	0.0 to 0.9 %RSD	5.15.1.14
Chemistry Linearity R ²	0.999 to 1.000 R ²	5.15.1.15
Chemistry X-Intercept	-.2 to 0.2 uL	5.15.1.16
Methanol Purge	Action – Completes without errors	Preparation for Shipping
Air Purge	Action – Completes without errors	Preparation for Shipping
Park Inject Valve	Action – Completes without errors	Preparation for Shipping
Home Needle	Action – Completes without errors	Preparation for Shipping
Save Serial Number	Write Scanned Serial Number. Read Back Serial Number = Scanned Serial Number	Preparation for Customer Use

8. SPECIFICATIONS UNIQUE TO VEYRON FTN (APC) SAMPLE MANAGER

Applies to Part Numbers: **186015051**

NOTE: FSD 721003992 Section 1 “The Veyron SM-FTN will conserve all functionality except if stated in the contents of this FSD performance and functionality of an H-Class FTN”.

TEST STEP	SPECIFICATION	721003992 REFERENCE
Jumper Config	129	PSC - This step verifies the build process which is not validated
Needle Seal Calibration	Action – Completes without errors	FSD 721001299 - 5.15.2.8
Needle Seal Force	48 to 68 lbs/in	FSD 721001299 - 5.15.1.34
Sample Syringe Decay	-5 to 15 PSI	5.16.6
Dynamic Leak Test	≤ 0.5 uL/min.	PSC – Not Specified. Tested to be consistent with other FTN models. Reference 721001299 line 5.15.1.35
Carryover	≤ 0.128 PPM (0.0032%)	5.16.4
Chemistry Precision Area	0.0 to 0.5 %RSD	5.16.1
Chemistry Precision Height	0.0 to .9%RSD	5.16.2
Chemistry Linearity R ²	0.999 to 1.000 R ²	5.16.3
Chemistry X-Intercept	-.2 to 0.2 uL	5.16.5

9. SPECIFICATIONS FOR ARC-BIO SAMPLE MANAGERS

Applies to Part Numbers: **186017011**

TEST STEP	SPECIFICATION	721013356 REFERENCE
Electrical Safety Test	see test procedure WAT046538	PSC - GMP
Power-on Initialization	Initializes without alarms	PSC – Preparation for test
Fans	Verify Fans are ON	PSC – This step verifies the build process which is not validated
Firmware Download	Firmware downloads without errors	PSC – Preparation for test
Restart Initialization	Instrument initializes without Alarms	PSC – This test step runs only if firmware was downloaded. It ensures the UUT is in a ready state and is able to continue testing
Sample Compartment Door & Lights	Open door lights turn on Close door lights turn off	5.1.1.18 and 5.2.3.1 PSC - This step verifies the build process which is not validated
Jumper Configuration	Jumpers = 128	PSC - This step verifies the build process which is not validated
Test Event Inputs	Set Input high = Read back High Set Input low = Read back Low	5.2.2.4.2 and Control Board Performance Spec sec. 5.3 of 810000367
Test Event Outputs	Set Event High = Event Output High Set Event Low = Event Output Low	5.2.2.4.1 and Control Board Performance Spec sec. 5.4 of 810000367
Test Leak Detectors	See Table 1.0	5.1.1.7 PSC - This step verifies the build process which is not validated
Test PSPI Interface	Dump HTCH = Active Preheater ID: 1 \[connected\ & Column Heater ID : 2 \[connected\]	5.2.2.3.3. PSC - Active Preheater and Column Heater chosen among variety of Waters peripherals to challenge the Interface function.
Ecord Interface	Perform writes and read back to iButton device	5.2.2.1 PSC – This step verifies the build process which is not validated
Theta Drive Calibration	Action – Completes without errors	5.14.3.1
Tray Cal Offset	-180 to 180 Degrees	5.14.1.1
R Axis Calibration	Action – Completes without errors	5.14.3.2
R Offset	-3.00 to 3.00 mm	5.14.1.2
Z Axis Calibration	Action – Completes without errors	5.14.3.3 and 5.14.2.4
Z Offset	-3.00 to 3.00 mm	5.14.1.3
Zp Offset	-3.00 to 3.00 mm	5.14.1.4

Sample Tray Select Switch	Open Door = tray 1 presented Select tray 2 = tray 2 presented Select tray 1 = tray 1 presented	5.1.1.5 PSC - This step verifies the build process which is not validated
Check Theta Drive Belt	Action - Completes without instrument alarms	PSC - This step verifies the build process which is not validated
R/Theta Positioner Test	Action – Completes without errors	5.14.3.5
1 st Move Error	-0.3 to 0.3 Degrees	5.14.1.5
Zp Pierce Lost Steps	-20 to 20 Lost Steps	5.14.1.6
Z Pierce Lost Steps	-20 to 20 Lost Steps	5.14.1.7
R Lost Steps	-20 to 20 Lost Steps	5.14.1.8
Sample Cooler Decay (186017001 only)	≤ -0.6 deg C/min	5.14.1.9
Methanol Prime	Action – Completes without errors	Preparation Dynamic Leak tests
BOS Pump Test	Fluid flows from the Waste port	5.1.1.16 PSC - This step verifies the build process which is not validated
Dynamic Leak Test	≤ 0.5 uL/min.	5.14.1.18
Needlewash Prime	Action – Completes without errors	Preparation for Chemistry tests
Test Preblank Injections	≤ 10% of previous Calibration Injection Area	5.14.2.13 Preparation for Carryover testing
Carryover	≤ 0.06 PPM (0.0015%)	5.14.1.12
Chemistry Precision Area	0.0 to 0.25 %RSD	5.14.1.13
Chemistry Precision Height	0.0 to 0.9 %RSD	5.14.1.14
Chemistry Linearity R ²	0.999 to 1.000 R ²	5.14.1.15
Chemistry X-Intercept	-.2 to 0.2 uL	5.14.1.16
Methanol Purge	Action – Completes without errors	Preparation for Shipping
Air Purge	Action – Completes without errors	Preparation for Shipping
Park Inject Valve	Action – Completes without errors	Preparation for Shipping
Home Needle	Action – Completes without errors	Preparation for Shipping
Save Serial Number	Write Scanned Serial Number. Read Back Serial Number = Scanned Serial Number	Preparation for Customer Use

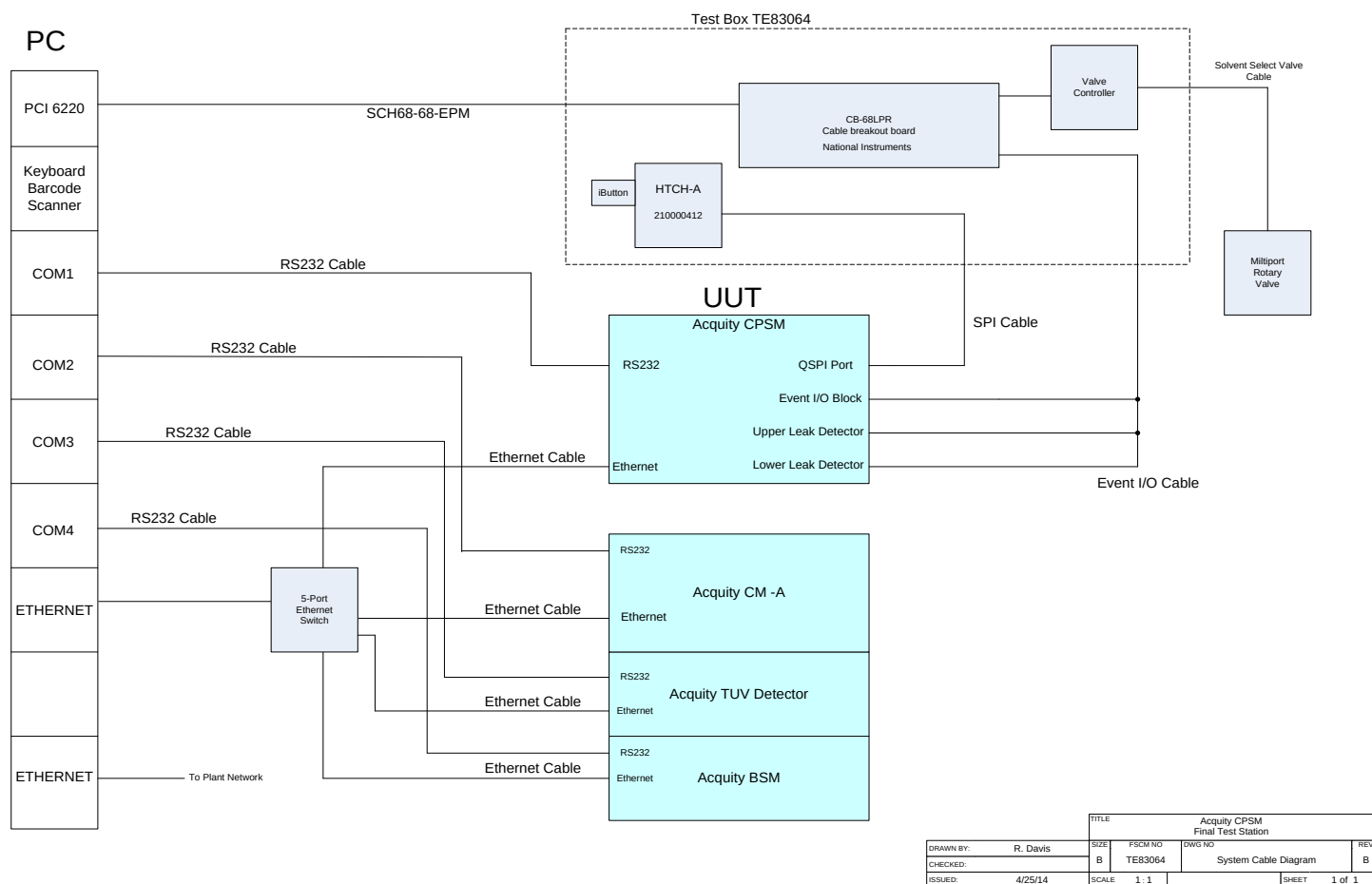
TABLE 1.0 Leak Detector Test States

Inputs				Read back			
Upper Power	Upper State	Lower Power	Lower State	Upper Sensor Present	Upper Sensor Status	Lower Sensor Present	Lower Sensor Status
0	0	0	0	not present	no leak	not present	no leak
1	0	1	0	present	no leak	present	no leak
1	1	1	1	present	leak	present	leak
0	1	0	1	not present	no leak	not present	no leak

Appendix – Test Station Setup

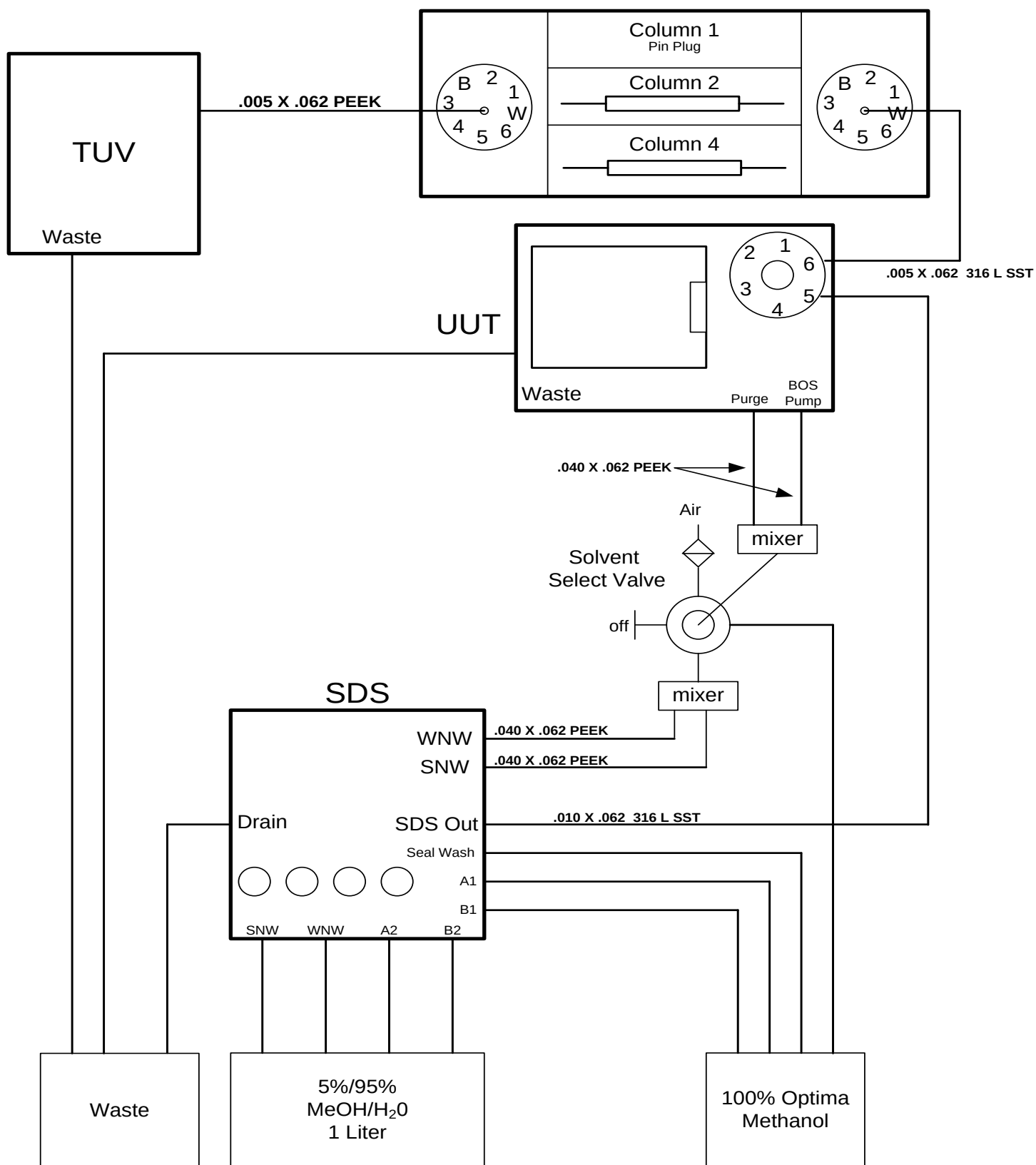
A. TEST STATION SETUP

1. Place SDS on bench, Column Manager on SDS, TUV on Column Manager, and solvent tray on TUV.
2. Install Flowcell into TUV Detector.
3. Install XBridge BEH C8 2.5 μ m 4.6x50mm XP Column in column manager position '2' and Acquity UPLC BEH C18 1.7 μ m 2.1x50 mm Column in position "4". Pin-plug unused valve ports (purge air from right valve, port 5).
4. Plug the PC, Monitor, Tester, Acquity SDS, Acquity TUV Detector, and Ethernet Hub into properly grounded AC outlets.
5. Connect the PC and instruments per cable diagram below.



6. Place a bottle of Fisher Optima Methanol in solvent tray and connect to SDS and the solvent select valve per Fluidics Diagram below.
7. Place a 1 Liter bottle of 5% methanol / 95% Milli-Q water in solvent tray and connect to SDS per Fluidics Diagram below.
8. Connect SDS waste port to a waste bottle.
9. Prime SDS pumps A and B.

Column Manager



TE83064 Fluidics Diagram