

ATTACHMENT

Enviro Systems, Inc. Evaluation Test Report – Cabin Pressurization Control System

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 1 of 59

Evaluation Test Report Cabin Pressurization Control System

Enviro Part Numbers:
Controller – 52811-701
Valves – 52812-701

Written By: _____ Dylan Sirbaugh

Revision Level: _____ - Date: _____ 3/19/2018

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 2 of 59

REV.	DATE	DESCRIPTION	APPROVAL
-	3/19/18	Original Release	W. Thompson

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 3 of 59

Table of Contents

1.0	SCOPE	5
2.0	APPLICABLE DOCUMENTS.....	5
3.0	TEST EQUIPMENT DESCRIPTION	5
4.0	TEST PARAMETERS.....	6
5.0	TEST RESULTS	6
6.0	CONCLUSIONS	7
	APPENDIX A – TEARDOWN AND EVALUATION PHOTOS.....	8
	APPENDIX B – ACCEPTANCE TEST DATA.....	46
	APPENDIX C – CONTROLLER SCREEN CAPTURES.....	56

Table of Figures

FIGURE 1 – INSTALLED OUTFLOW VALVE SHOWING DIAPHRAGM IN OPEN POSITION	8
FIGURE 2 – BACK SIDE OF OUTFLOW VALVE SHOWING COMPRESSED GASKET	9
FIGURE 3 – SIDE VIEW OF OUTFLOW VALVE SHOWING DIAPHRAGM IN OPEN POSITION	10
FIGURE 4 – FULL PRESSURIZATION ASSEMBLY IN EVOLUTION AIRCRAFT MOUNTING AS RECEIVED	11
FIGURE 5 – FULL PRESSURIZATION ASSEMBLY WITH TEST HARNESS CONNECTED	12
FIGURE 6 – ENVIRO TEST BOX WITH ABILITY TO TOGGLE DISCRETE SWITCHES.....	13
FIGURE 7 – RELIABILITY SCREEN SHOWING TOTAL OPERATIONAL TIME	14
FIGURE 8 – FULL SYSTEM LEAK TEST USING PPCM CONNECTED TO STATIC PORT	15
FIGURE 9 – FULL SYSTEM LEAK TEST USING PPCM CONNECTED TO STATIC PORT	16
FIGURE 10 – FULL SYSTEM LEAK TEST ON SECOND STATIC PORT	17
FIGURE 11 – LEAK CHECK SHOWING 400 KNOTS OF DIFFERENTIAL PRESSURE.....	18
FIGURE 12 – REAR MOUNTING BRACKETS MISSING HARDWARE AS RECEIVED.....	19
FIGURE 13 – REMOVED OUTFLOW VALVE SHOWING OPEN DIAPHRAGM.....	20
FIGURE 14 – BOTTOM SIDE OF REMOVED OUTFLOW VALVE.....	21
FIGURE 15 – SIDE VIEW OF REMOVED OUTFLOW VALVE.....	22
FIGURE 16 – OUTFLOW VALVE MOUNTING SURFACE.....	23
FIGURE 17 – REMOVED OUTFLOW VALVE.....	24
FIGURE 18 – BOTTOM SIDE OF REMOVED OUTFLOW VALVE.....	25
FIGURE 19 – SIDE VIEW OF REMOVED OUTFLOW VALVE.....	26
FIGURE 20 – FULL ASSEMBLY SHOWING REMOVED OUTFLOW VALVE WITH INTACT PLUMBING.....	27

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 4 of 59

FIGURE 21 – OUTFLOW VALVE 52812-701 SN 00120	28
FIGURE 22 – OUTFLOW VALVE 52812-701 SN 00119	29
FIGURE 23 – DIGITAL PPCM CALIBRATION STICKER	30
FIGURE 24 – STOPWATCH CALIBRATION STICKER.....	31
FIGURE 25 – OUTFLOW VALVE 52812-701 SN 00119 DISCONNECTED FROM PLUMBING	32
FIGURE 26 – CABIN AIR FILTER REMOVED FOR ATP TESTING	33
FIGURE 27 – CABIN AIR FILTER SHOWING FREE FROM CONTAMINATION OR CLOGGING.....	34
FIGURE 28 – OUTFLOW VALVE ON ATP TEST FIXTURE WITH REQUIRED PLUMBING FITTING	35
FIGURE 29 – OUTFLOW VALVE PLUMBED FOR DIFFERENTIAL PRESSURE SET POINT TEST.....	36
FIGURE 30 – CABIN AIR FILTER SHOWING FREE OF CONTAMINATION OR CLOGGING	37
FIGURE 31 – CONTROLLER INSTALLED IN INSTALLATION WITH OUTFLOW VALVES REMOVED .	38
FIGURE 32 – EVOLUTION AIRCRAFT SUPPLIED POP OFF VALVE	39
FIGURE 33 – CONTROLLER MOUNTING HARDWARE SHOWING PAINT DAMAGE	40
FIGURE 34 – MOUNTING FIXTURE WITH CONTROLLER REMOVED	41
FIGURE 35 – PRESSURIZATION CONTROLLER 52811-701 SN 05008 SCI 003.....	42
FIGURE 36 – CABIN AIR FILTER REMOVED FOR ATP TESTING	43
FIGURE 37 – CABIN AIR FITTING USED FOR ATP TESTING	44
FIGURE 38 – ARINC CONTROL BOX USED FOR SENDING AND RECEIVING ARINC MESSAGES...	45
FIGURE 39 – PRE-TEST ERROR LOGS.....	56
FIGURE 41 – ARINC SCREEN	57
FIGURE 42 – IO SCREEN.....	58
FIGURE 43 – RELIABILITY SCREEN	59

Table of Tables

TABLE 1 – LIST OF SPECIAL TOOLS.....	6
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	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 5 of 59

1.0 SCOPE

The purpose of this evaluation test report is to document the condition of the pressurization control system as received by Enviro Systems. The system was removed from an accident aircraft that had a wind screen failure in flight. All unpacking and testing was witnessed by Mr. Gail Sober from the FAA Oklahoma City Flight Standards District Office

2.0 APPLICABLE DOCUMENTS

52811-701	Drawing – Cabin Air Controller
52812-701	Drawing – Valve, Outflow 3"
ATP52811-701	Acceptance Test Procedure – Cabin Air Controller
ATD52811-701	Acceptance Test Data – Cabin Air Controller
ATP52812-701	Acceptance Test Procedure – Valve, Outflow 3"
ATD52812-701	Acceptance Test Data – Valve, Outflow 3"

3.0 TEST EQUIPMENT DESCRIPTION

The following test equipment shown in Table 1 was utilized during testing:

Section	Test	Tool
6.1	System Evaluation	Power Supply (28 VDC)
6.1	System Evaluation	PPCM or equivalent.(<i>Calibration Required see Figure 23</i>)
6.1	System Evaluation	eKAPS II Test Box TE #7601-0105, wire diagram # 49856 or equivalent (<i>Calibration NOT Required</i>)
6.1	System Evaluation	Windows computer with a serial port running Windows 95 or later configured as a terminal monitoring the serial port.
6.2	ATP52811-701	Power Supply (28 VDC)
6.2	ATP52811-701	PPCM or equivalent.(<i>Calibration Required see Figure 23</i>)
6.2	ATP52811-701	eKAPS II Test Box TE #7601-0105, wire diagram # 49856 or equivalent (<i>Calibration NOT Required</i>)
6.2	ATP52811-701	Windows computer with a serial port running Windows 95 or later configured as a terminal monitoring the serial port.
6.2	ATP52811-701	BF Goodrich Datatrak, TE #0008-0220-2, 400H ARINC 429 test interface or equivalent. Must be capable of simultaneous transmission and reception of either high or low speed ARINC 429. (<i>Calibration NOT Required</i>).
6.3 & 6.4	ATP52812-701	Qty: 2 PPCM or equivalent.(<i>Calibration Required see Figure 23</i>)
6.3 & 6.4	ATP52812-701	Vacuum source capable of maintaining 4 inHg absolute pressure
6.3 & 6.4	ATP52812-701	eKAPS ATP Pneumatic Interface, TE

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 6 of 59

		#7601-0110
6.3 & 6.4	ATP52812-701	Miscellaneous hose adapters and fittings as required
6.3 & 6.4	ATP52812-701	MS51525B4S fitting (Qty 2) and cap for #4 flare fitting or equivalent
6.3 & 6.4	ATP52812-701	Stopwatch or equivalent timing device with a resolution of 1 second or better
6.3 & 6.4	ATP52812-701	Pressure source capable of maintaining 30 psig minimum. Pressure source to be free of oil, condensate, and particulate matter
6.3 & 6.4	ATP52812-701	Vacuum gage suitable for verification of proper vacuum source operation
6.3 & 6.4	ATP52812-701	eKAPS electric benchtop valve vibration fixture with adapters for 3" valve (TE #7601-0104)

Table 1 – List of Special Tools

4.0 TEST PARAMETERS

Functional Testing was conducted in accordance with ATP52811-701 and ATP52812-701 respectively.

1. Unit was operated according to requirements of ATP52811-701 and ATP52812-701 and ran to completion of the test without failure.
2. See Appendix A through C for pictures and data.

5.0 TEST RESULTS

5.1 System evaluation

Assembly was returned to Enviro complete and installed in the Evolution Aircraft provided mounting assembly, see Figure 4. Evolution Aircraft provided hardware included composite housing and metal mounting assembly in black, mounting hardware for outflow valves and controller, all plumbing connecting the valves and controller together, and two additional valves not provided by Enviro Systems as shown in Figure 32.

Visual inspection revealed the entire system was intact and with no damage. A functional Leak test on the static ports of the entire system revealed no leaks and the diaphragms remained in the normal fully open position. See Figure 1, Figure 3, Figure 8, Figure 9, Figure 10, and Figure 11 showing diaphragm position and leak test setup. The hardware securing each valve was properly fastened and the gasket was compressed and sealed in the normal condition. See Figure 2 showing installed outflow valve with compressed gasket. The controller installation only utilized two of the four mounting provisions. See Figure 12 and Figure 33 showing mounting hardware.

Power was applied to the complete assembly prior to any disassembly as shown in Figure 5. Controller maintenance information was accessed showing the total system time, operation time and any errors logged post-delivery by Enviro. The reliability screen shown in Figure 42 shows a total power on time of 239 hours and 24 minutes and a total flight time of 192 hours and 36 minutes.

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 7 of 59

The outflow valves were removed from the mounting structure with their plumbing intact to allow for further visual inspection as shown in Figures 13-20. All valves showed to be in their normal functional positions with no abnormalities observed.

5.252811-701 S/N 05008

The controller serial number 05008 as shown in Figure 38 passed ATP and met all original functional requirements. See Appendix B for test data sheet. Figure 39 shows the errors present on the controller when it was received at Enviro. There were three errors logged on the system, “vacuum leak detected” at 43h 3’ 59”, “excessive use of pump detected” at 43h 3’ 59”, and “climb solenoid fault” at 43h 5’ 47”. These three errors are normally triggered during the aircraft build process. These errors are triggered during on ground testing when inflow is not present and the controller is unable to control the cabin altitude. Based on the operating time of the controller when these errors were triggered, they occurred during the original functional testing during the aircraft build process. There were no errors triggered near the operating time of failure. All data communication from the controller was verified as part of the functional test and is shown in Figure 38.

5.352812-701 S/N 00119

Valve serial number 00119 shown in Figures 22 and 25 passed ATP and met all original functional requirements. The valve air filters were removed and inspected and found to be free of any contamination as shown in Figure 26. See Appendix B for test data sheet. Specifically of interest, the set point of the maximum differential pressure limiter 6.42 PSID (488.4 knots) was within the specified tolerance of 6.5 ± 0.1 PSID. Additionally, the maximum altitude limiter was measured at 14,303 ft which is within the specified tolerance of $14,300 \pm 300$ ft.

5.452812-701 S/N 00120

Valve serial number 00120 shown in Figure 21 passed ATP and met all original functional requirements. The valve air filters were removed and inspected and found to be free of any contamination as shown in Figure 27. See Appendix B for test data sheet. Specifically of interest, the set point of the maximum differential pressure limiter 6.42 PSID (488.7 knots) was within the specified tolerance of 6.5 ± 0.1 PSID. Additionally, the maximum altitude limiter was measured at 14,224 ft which is within the specified tolerance of $14,300 \pm 300$ ft.

6.0 CONCLUSIONS

The Cabin Pressure Control System was returned with the system fully intact. The system and individual components met all Original Functional Test Requirements for the System and the individual components. Based on the evaluation and testing of these components, the Cabin Pressure Control System is fully functional and has no defects.

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 8 of 59

APPENDIX A – TEARDOWN AND EVALUATION PHOTOS



Figure 1 – Installed outflow valve showing diaphragm in open position

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 9 of 59



Figure 2 – Back side of outflow valve showing compressed gasket

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 10 of 59



Figure 3 – Side view of outflow valve showing diaphragm in open position

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 11 of 59



Figure 4 – Full pressurization assembly in Evolution Aircraft mounting as received

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 12 of 59

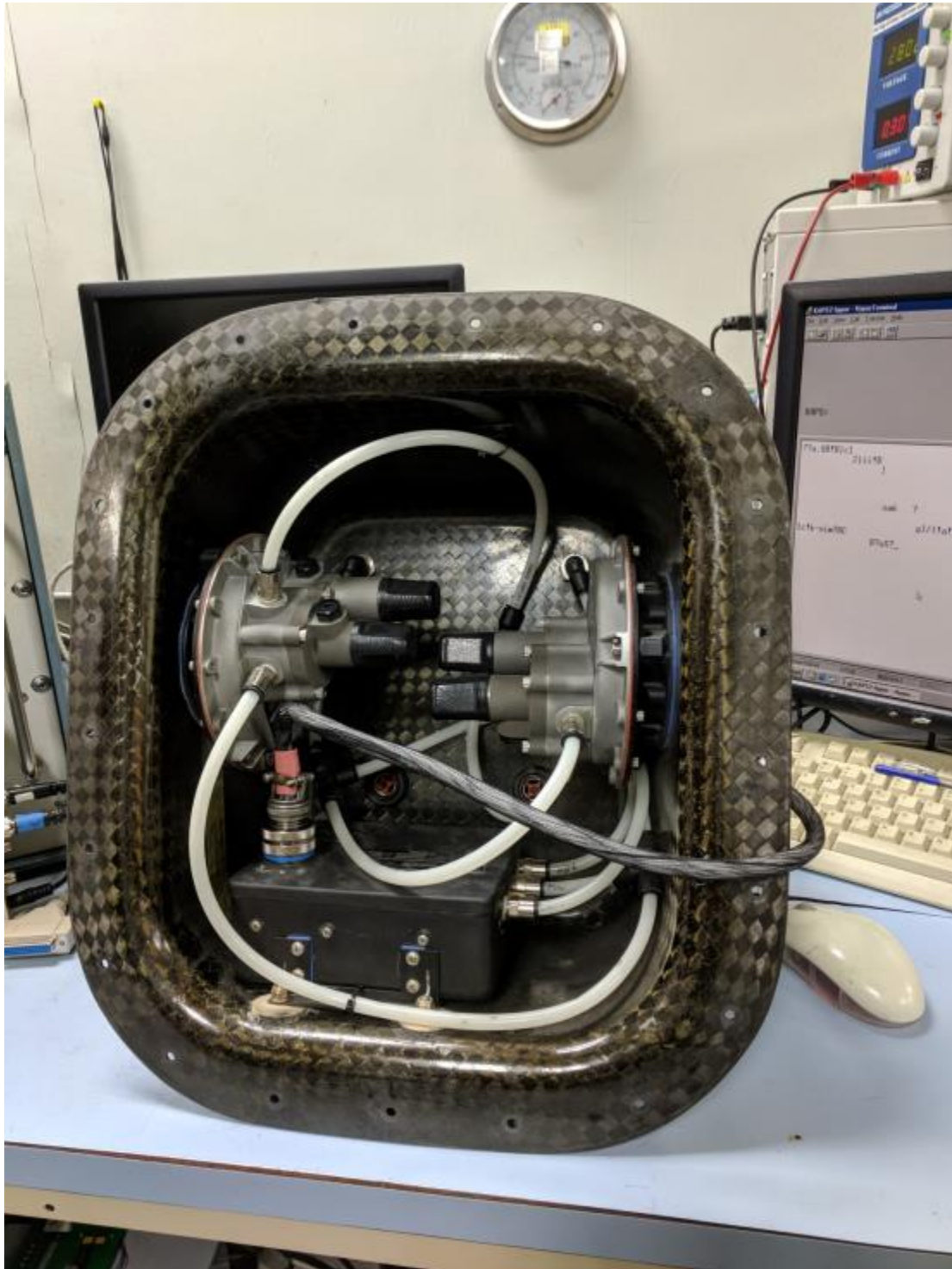


Figure 5 – Full pressurization assembly with test harness connected

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 13 of 59

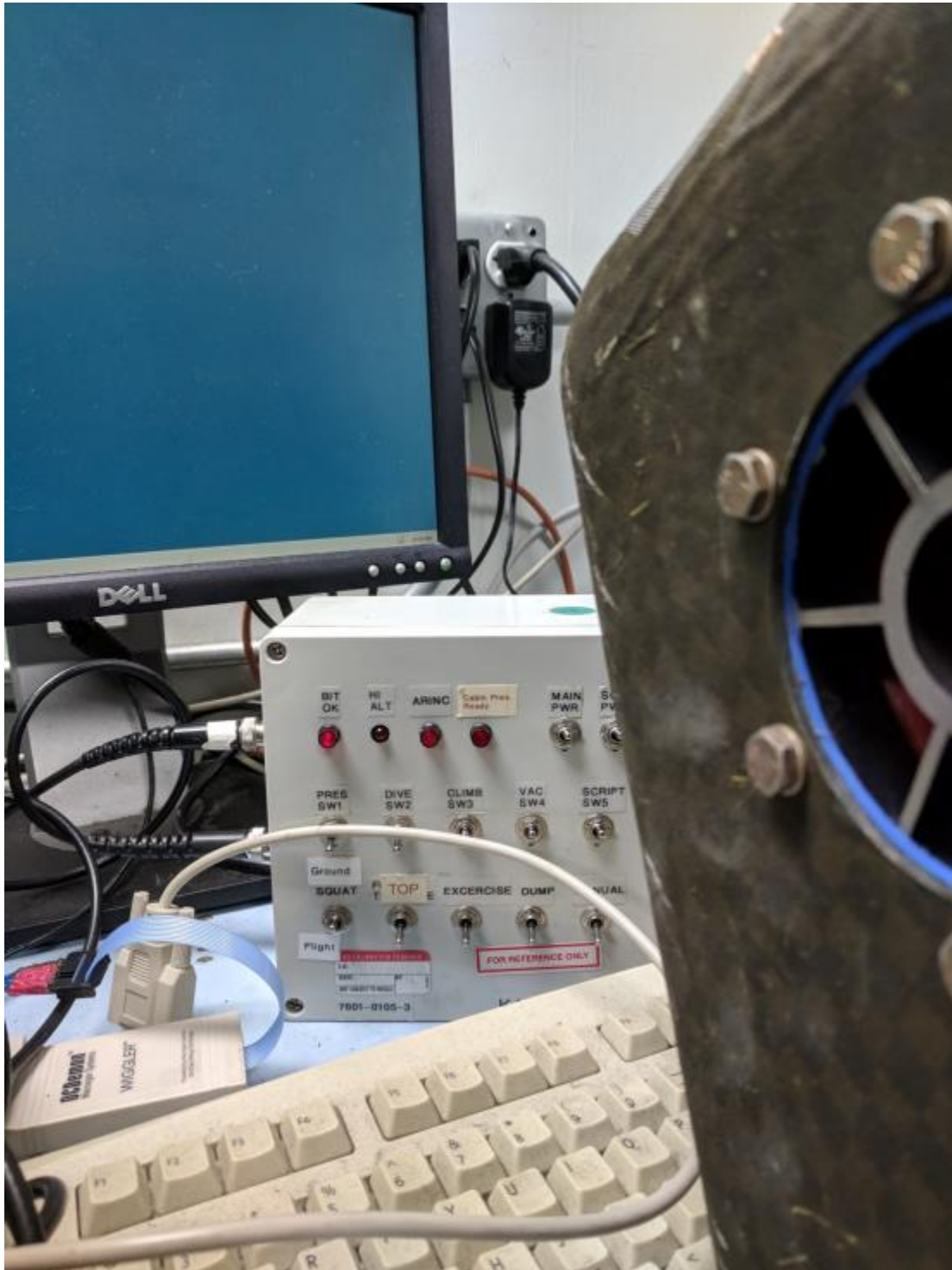


Figure 6 – Enviro test box with ability to toggle discrete switches

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 14 of 59

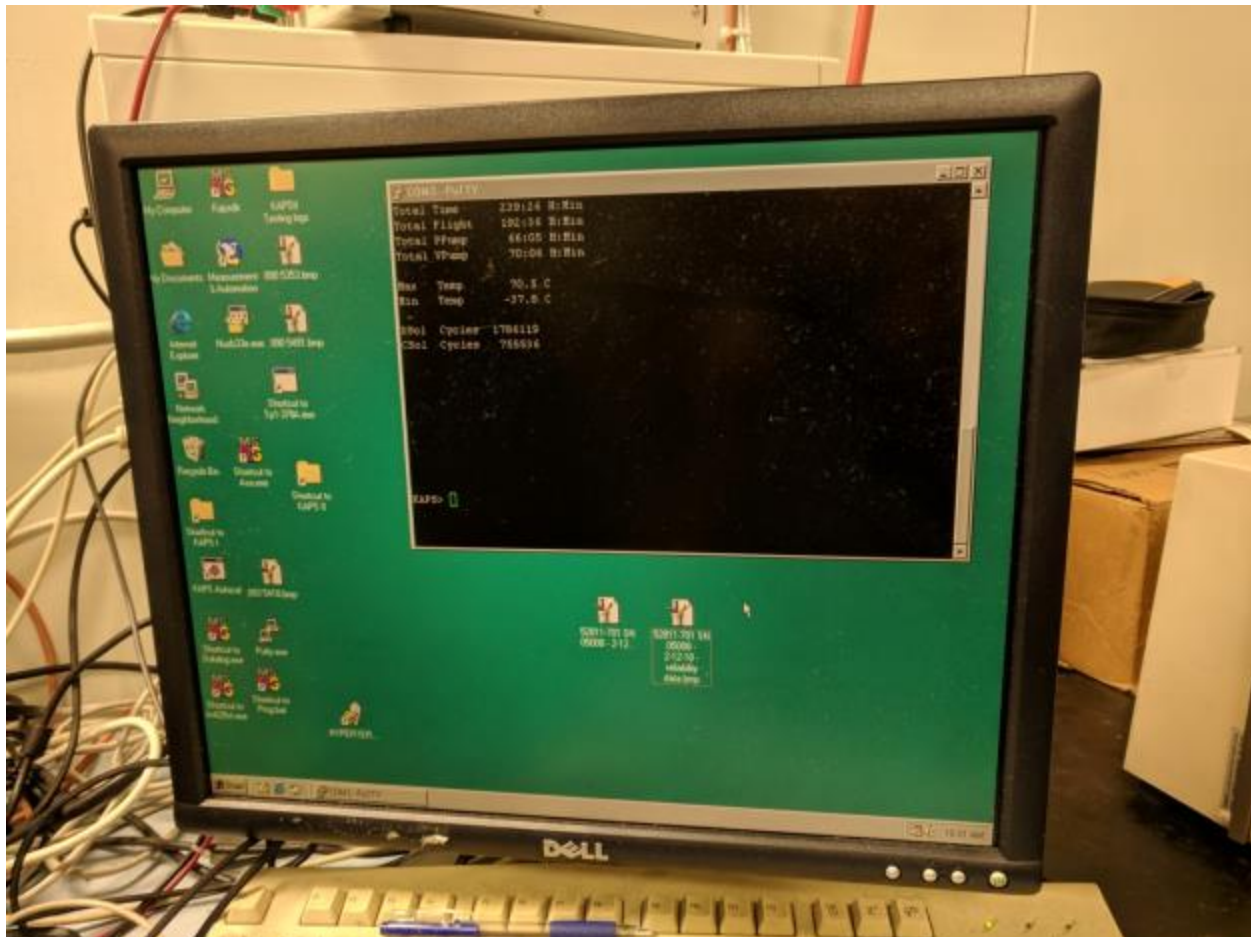


Figure 7 – Reliability screen showing total operational time

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 15 of 59

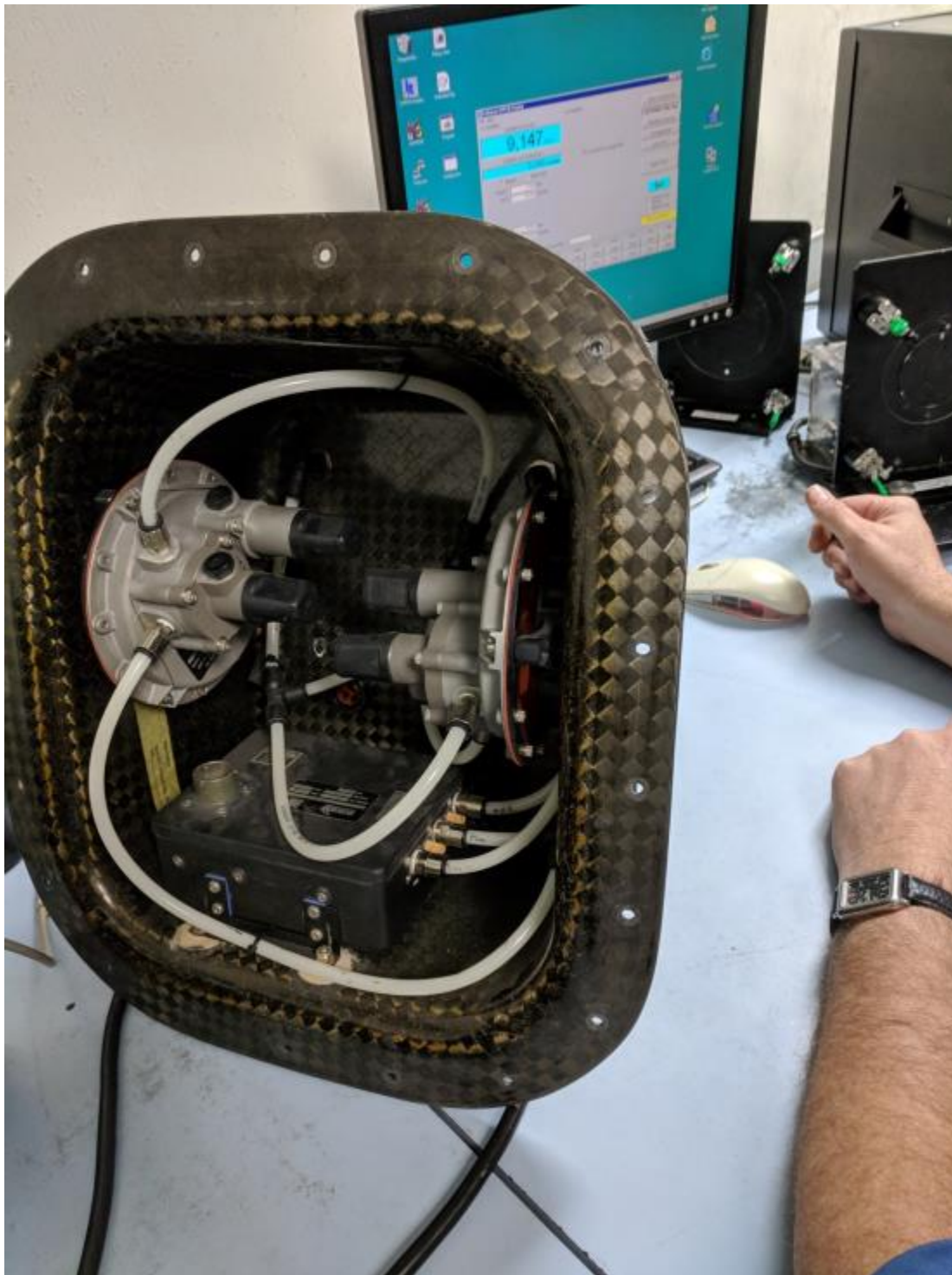


Figure 8 – Full system leak test using PPCM connected to static port

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 16 of 59

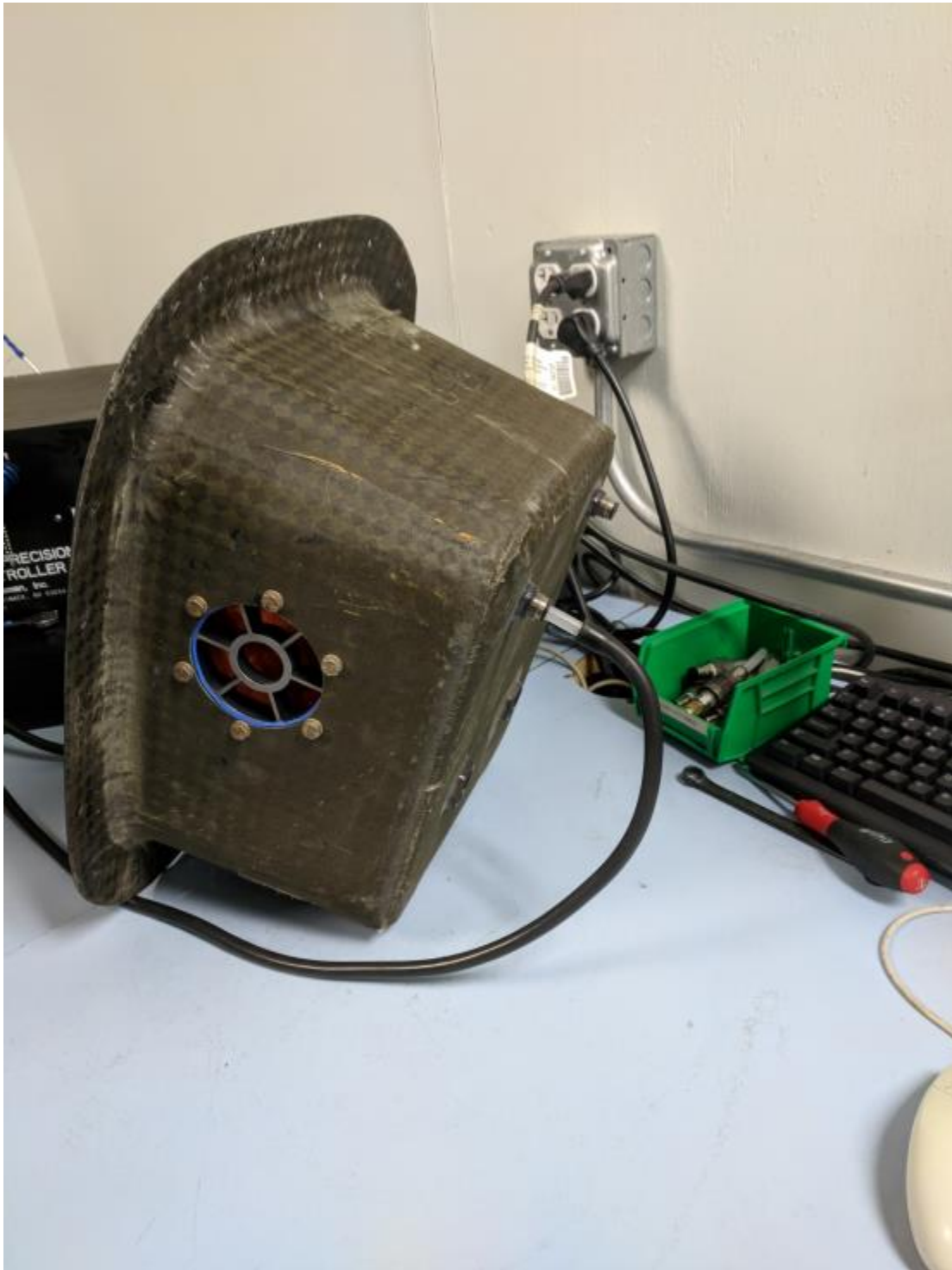


Figure 9 – Full system leak test using PPCM connected to static port

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 17 of 59



Figure 10 – Full system leak test on second static port

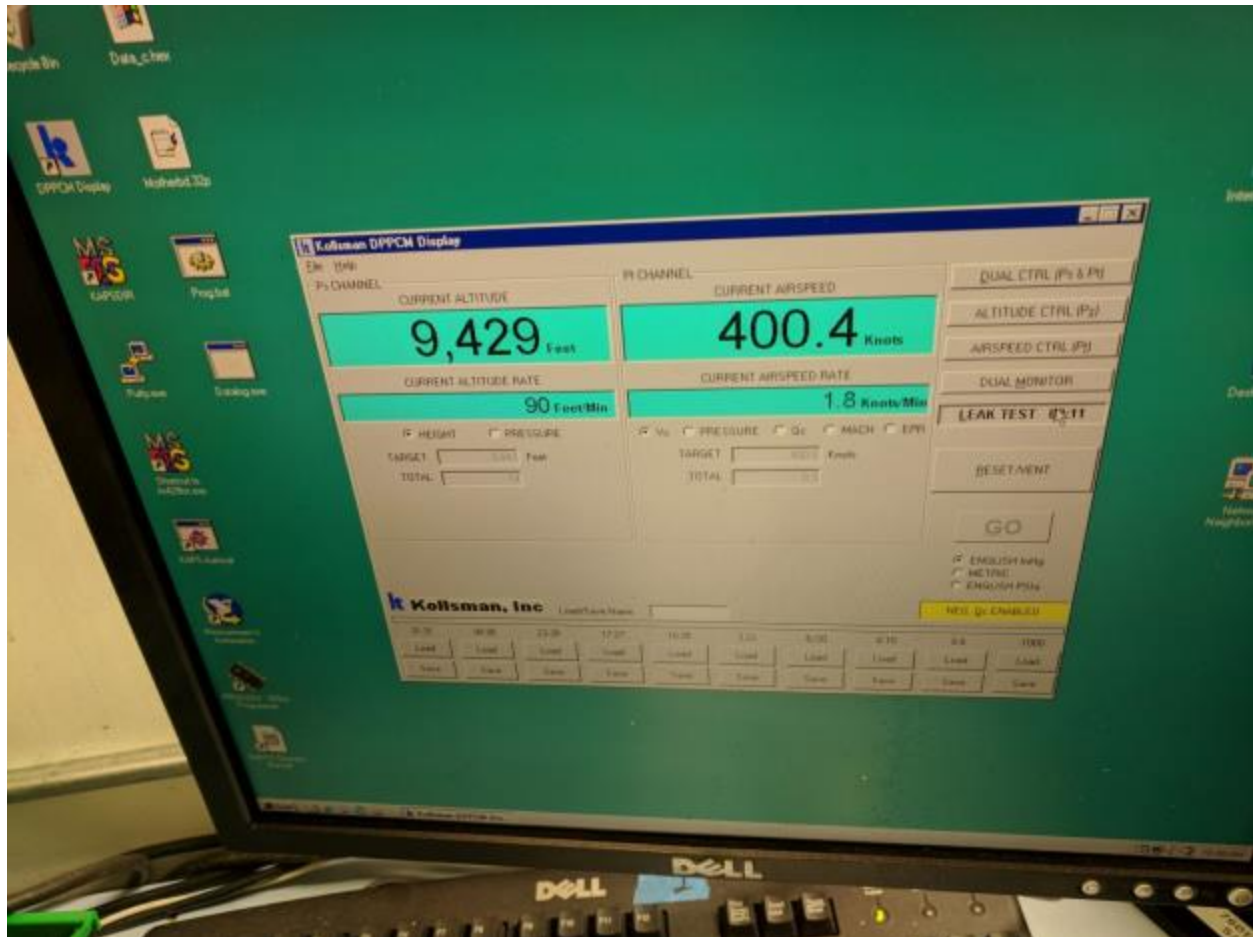


Figure 11 – Leak check showing 400 knots of differential pressure

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 19 of 59



Figure 12 – Rear mounting brackets missing hardware as received

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 20 of 59



Figure 13 – Removed outflow valve showing open diaphragm

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 21 of 59



Figure 14 – Bottom side of removed outflow valve

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 22 of 59

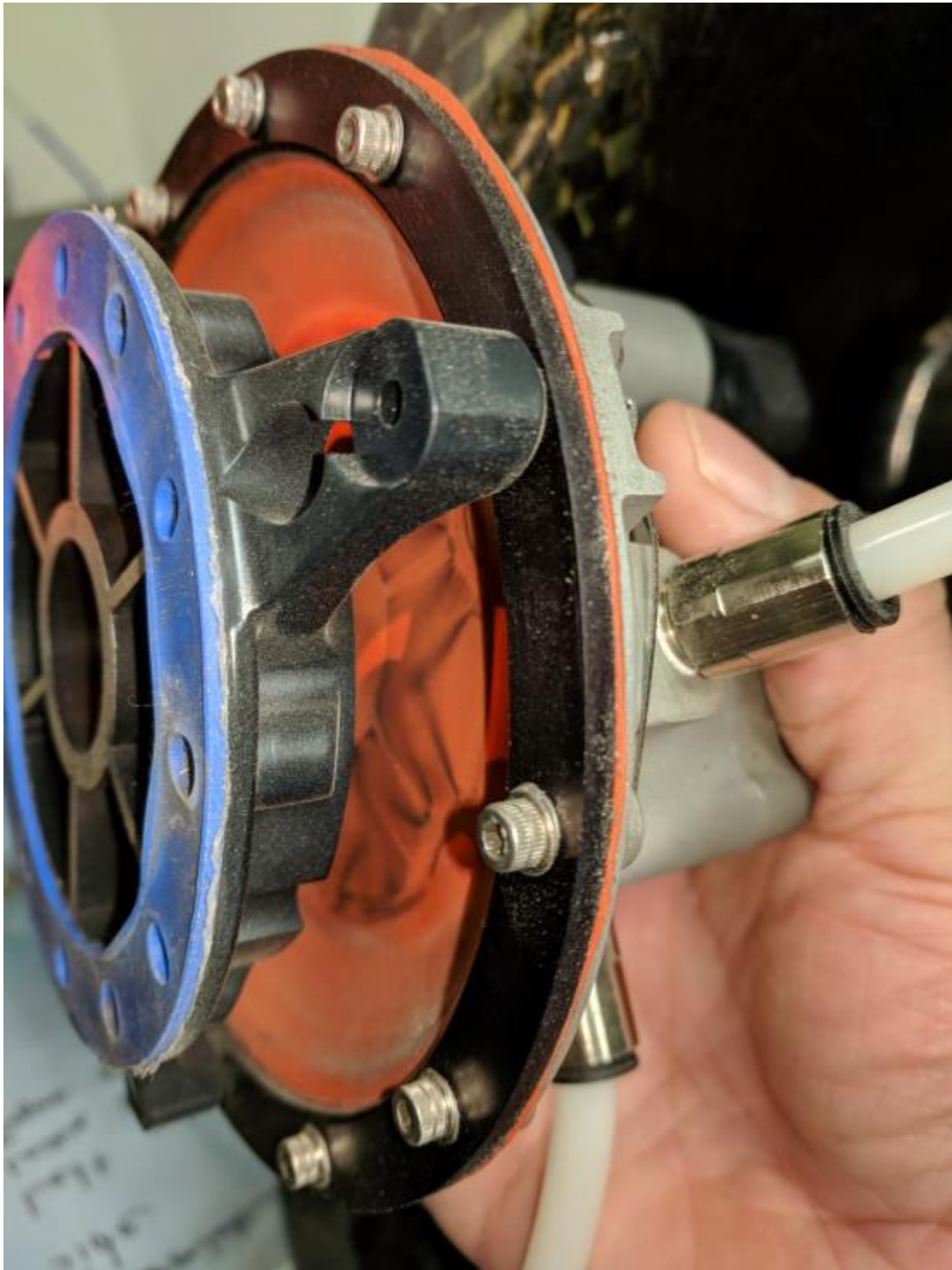


Figure 15 – Side view of removed outflow valve

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 23 of 59



Figure 16 – Outflow valve mounting surface

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 24 of 59



Figure 17 – Removed outflow valve

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 25 of 59



Figure 18 – Bottom side of removed outflow valve

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 26 of 59

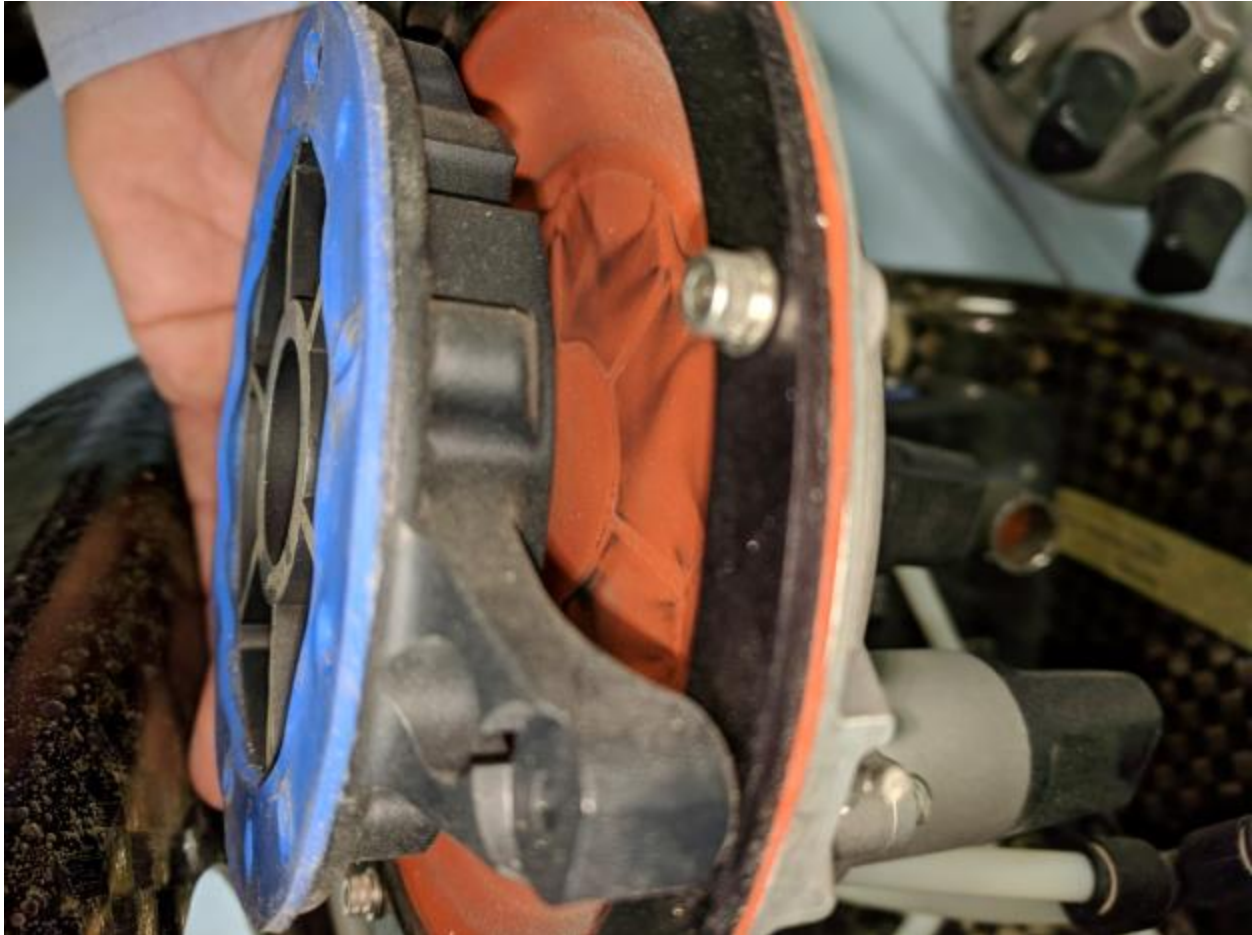


Figure 19 – Side view of removed outflow valve

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 27 of 59

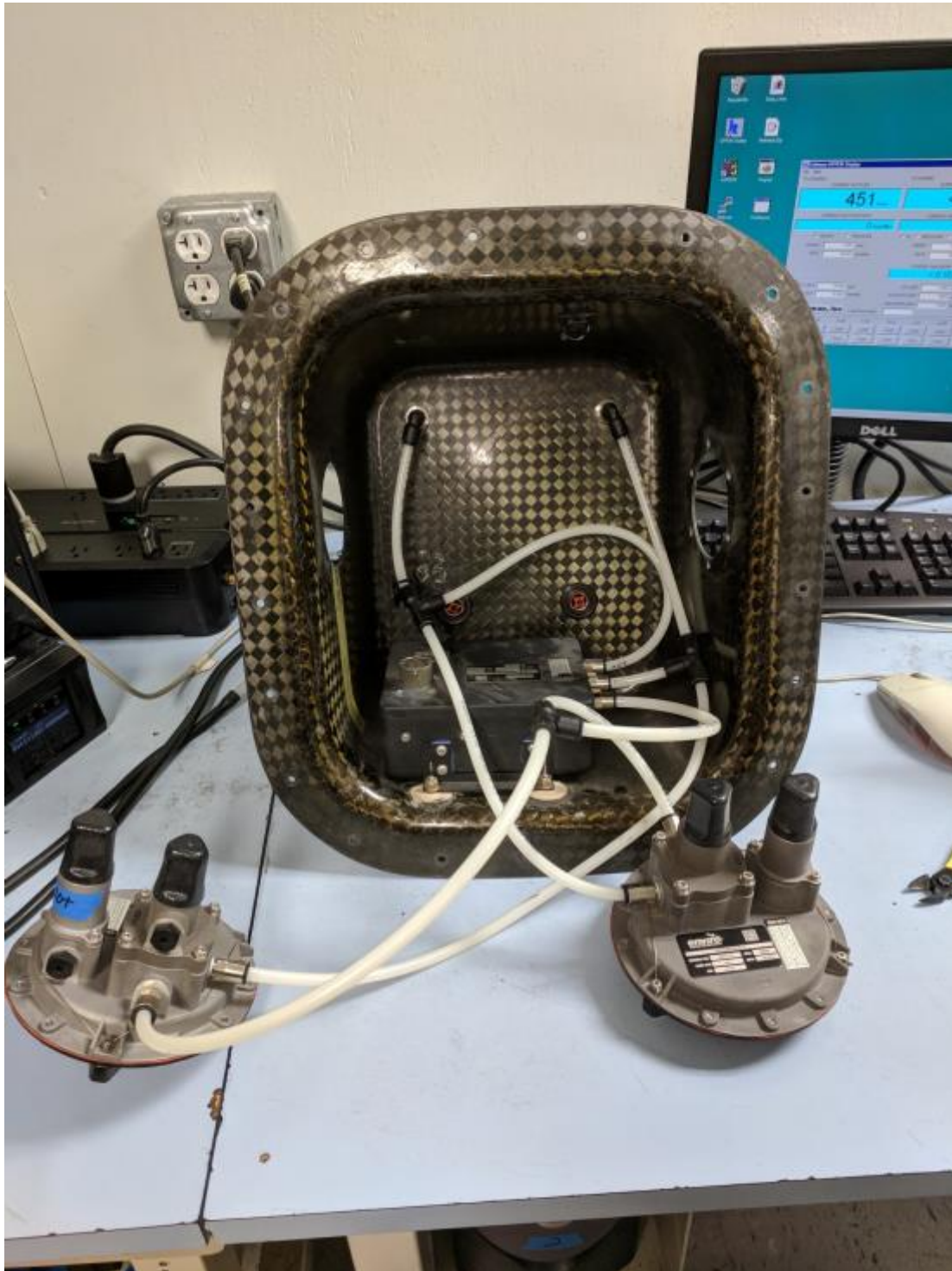


Figure 20 – Full assembly showing removed outflow valve with intact plumbing



Figure 21 – Outflow valve 52812-701 SN 00120

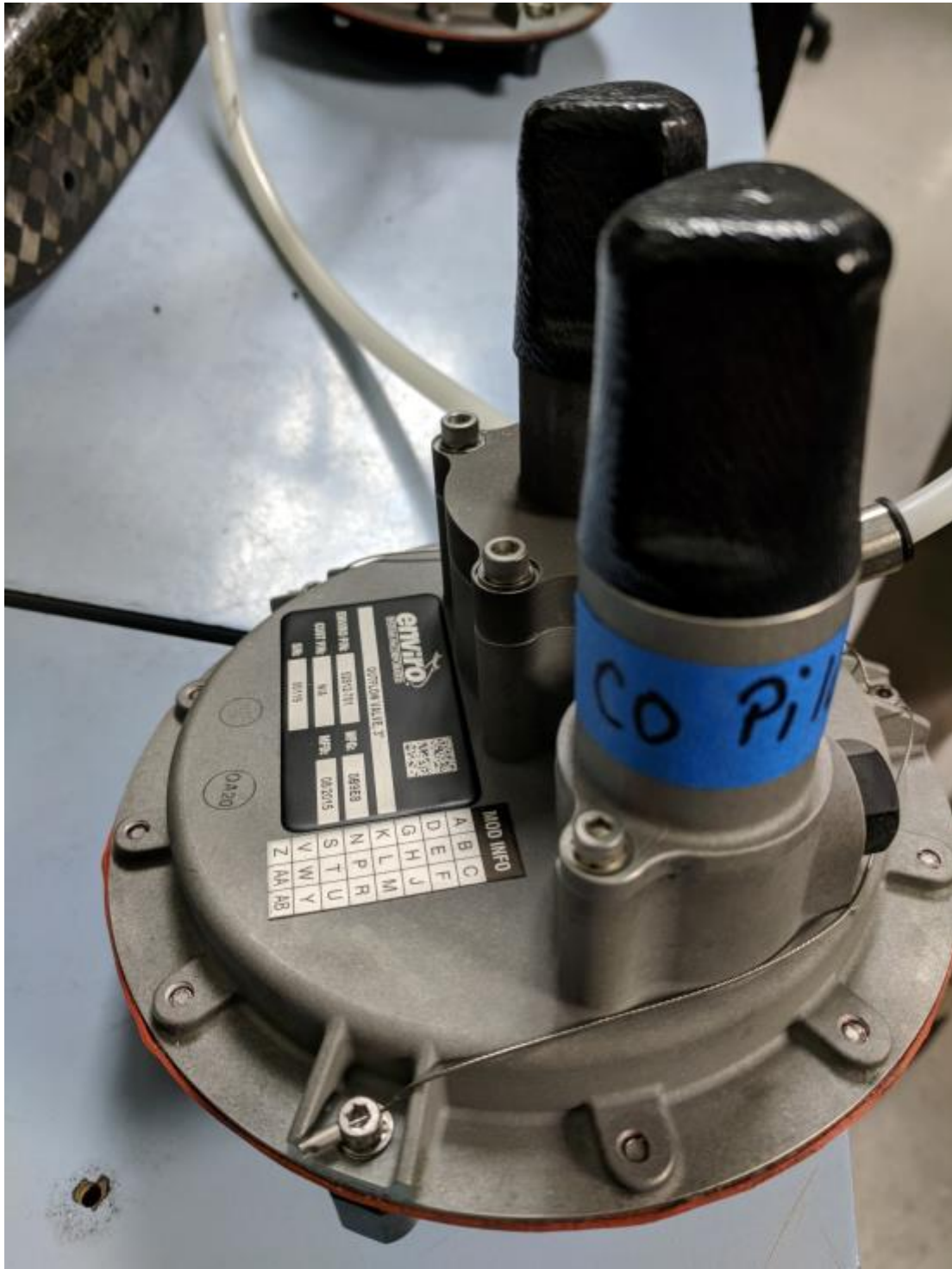


Figure 22 – Outflow valve 52812-701 SN 00119

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 30 of 59



Figure 23 – Digital PPCM calibration sticker

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 31 of 59



Figure 24 – Stopwatch calibration sticker

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 33 of 59



Figure 26 – Cabin air filter removed for ATP testing

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 34 of 59



Figure 27 – Cabin air filter showing free from contamination or clogging

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 35 of 59

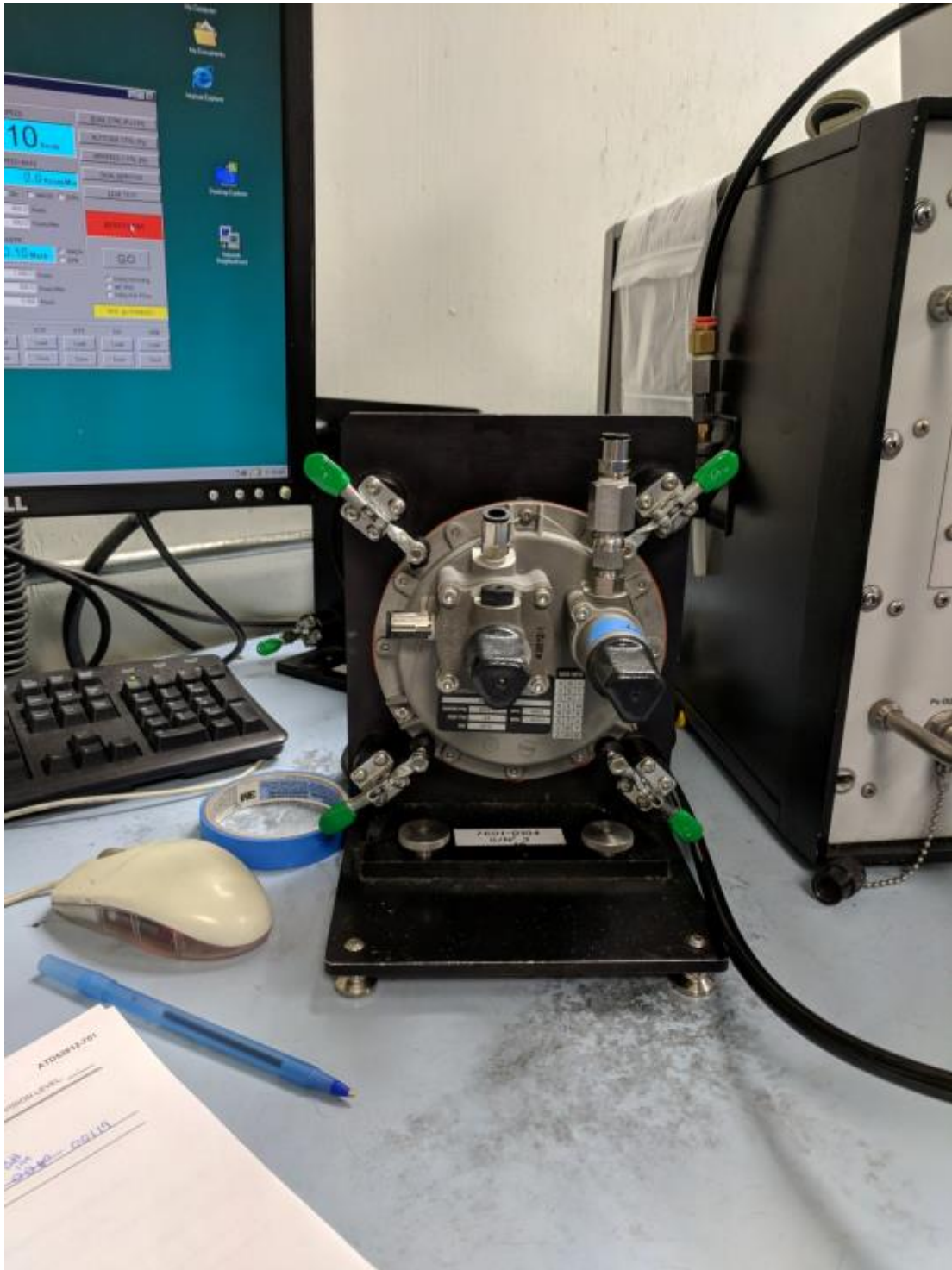


Figure 28 – Outflow valve on ATP test fixture with required plumbing fitting

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 36 of 59

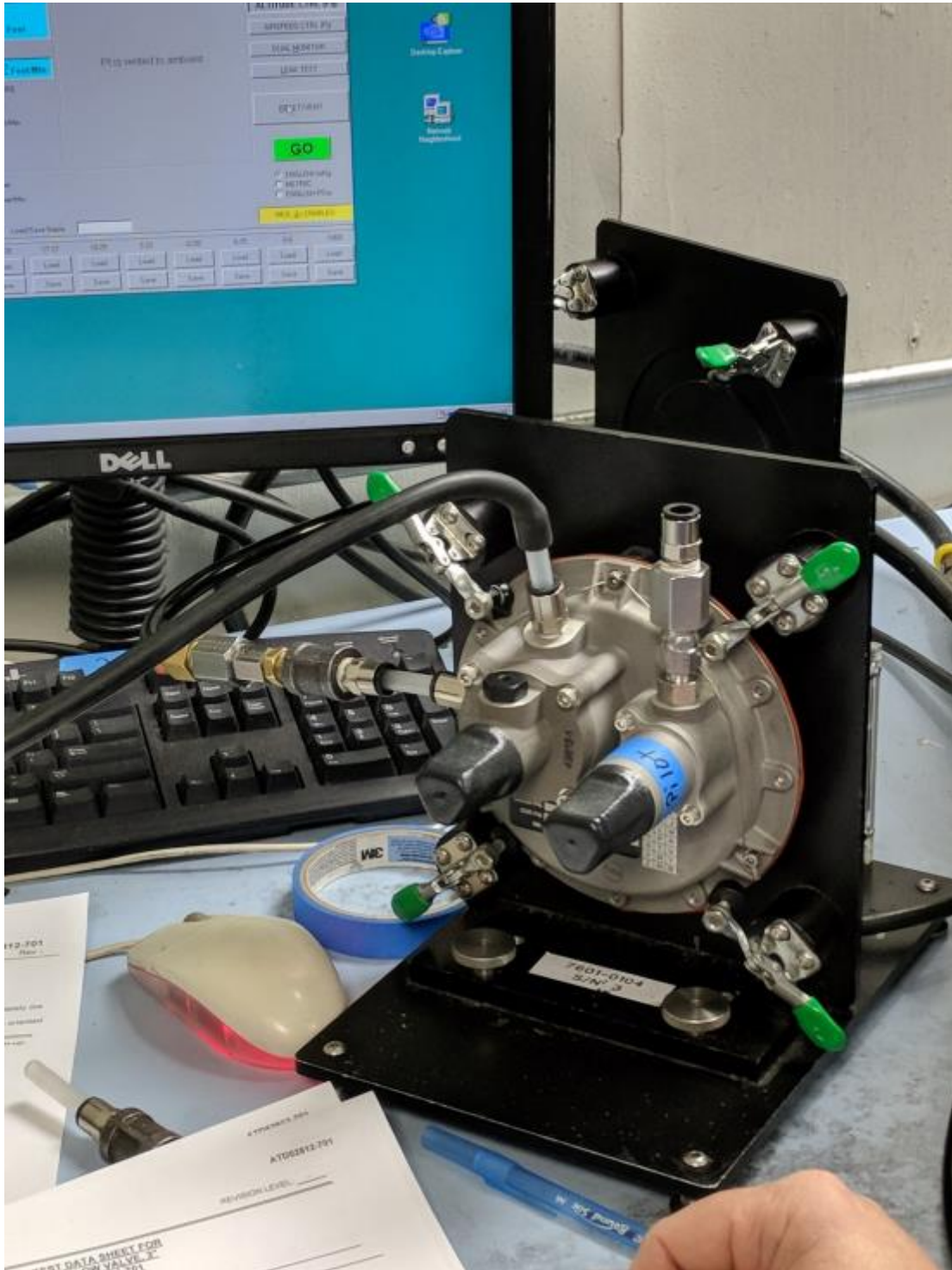


Figure 29 – Outflow valve plumbed for differential pressure set point test

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 37 of 59

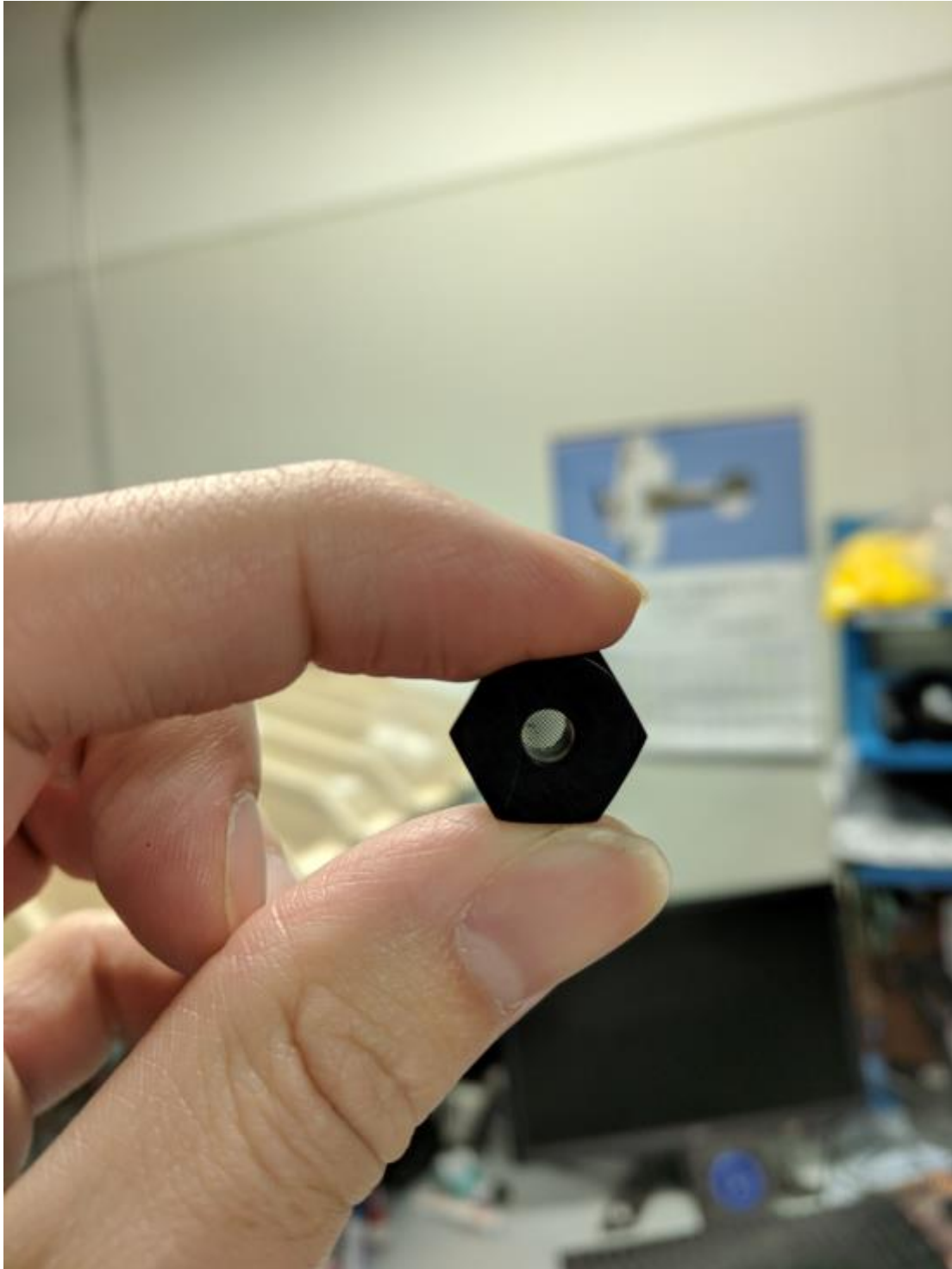


Figure 30 – Cabin air filter showing free of contamination or clogging

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	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 38 of 59

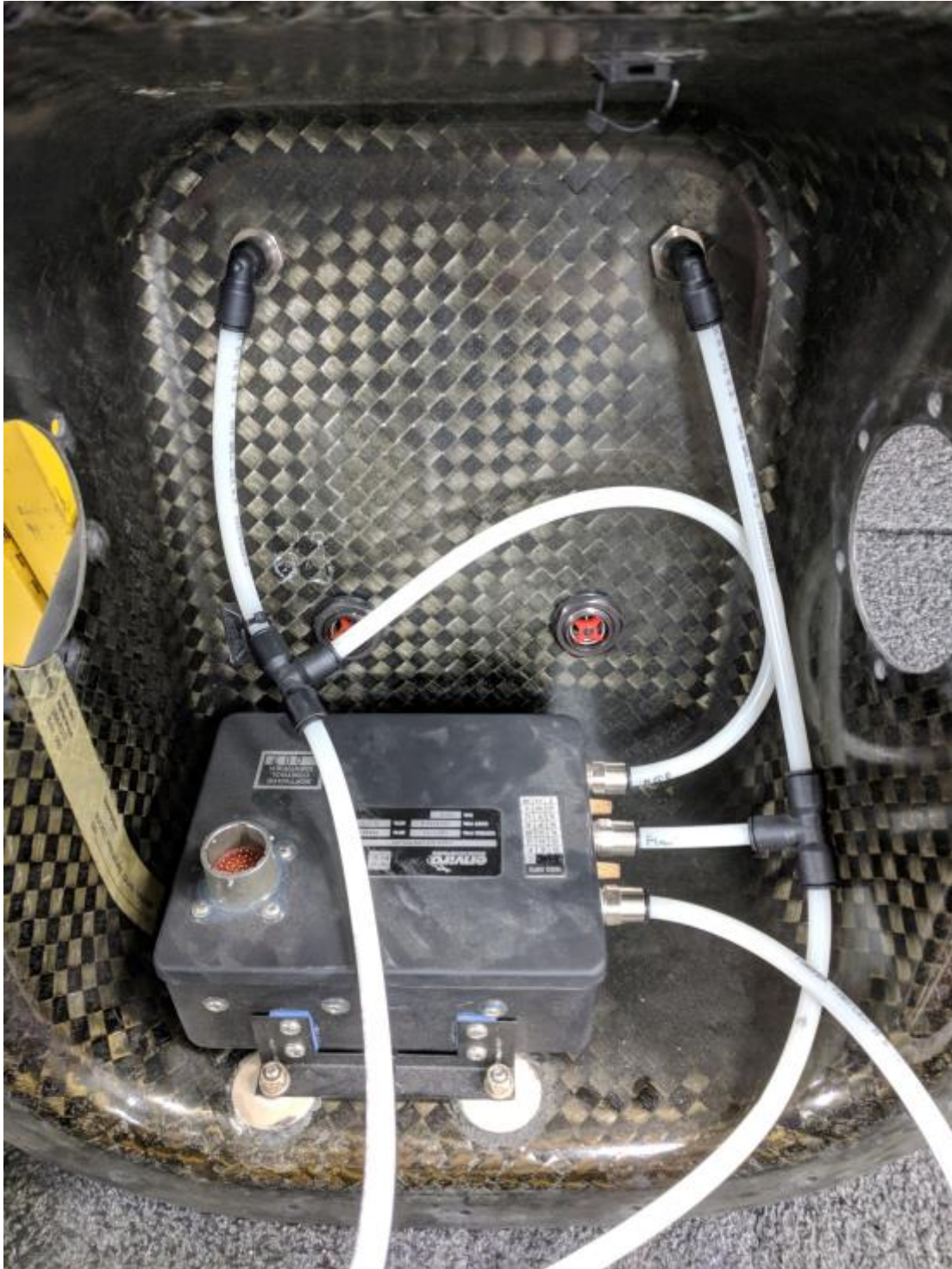


Figure 31 – Controller installed in installation with outflow valves removed

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 39 of 59



Figure 32 – Evolution aircraft supplied pop off valve

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 40 of 59



Figure 33 – Controller mounting hardware showing paint damage

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 41 of 59



Figure 34 – Mounting fixture with controller removed

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 42 of 59



Figure 35 – Pressurization controller 52811-701 SN 05008 SCI 003

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 43 of 59



Figure 36 – Cabin air filter removed for ATP testing

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 44 of 59



Figure 37 – Cabin air fitting used for ATP testing

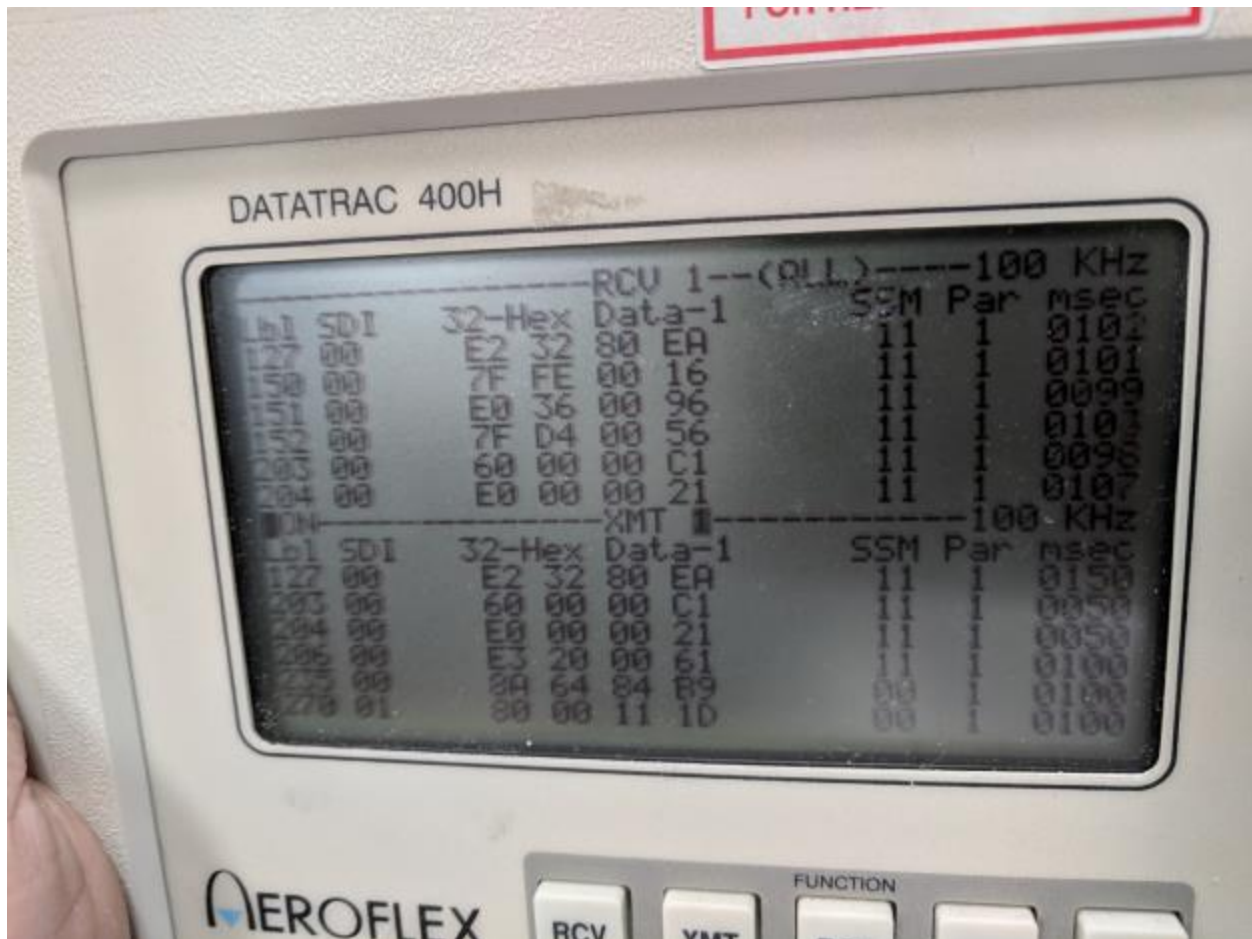


Figure 38 – ARINC control box used for sending and receiving ARINC messages

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 46 of 59

APPENDIX B – ACCEPTANCE TEST DATA

 Seminole, OK 74868	ATD52811-701 REV A
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ATD52811-701

**Acceptance Test Data for
Enviro Autoscheduling Pressurization System II
(eKAPS II) Controller
P/N: 52811-701**

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Prepared By: <u>Dylan Sirbaugh</u>	9/3/14	Approved By: <u>Dylan Sirbaugh</u>	3/19/15
	Date		Date

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Seminole, OK 74868

ATD52811-701
REV A

Acceptance Test Data for Enviro Autoscheduling Pressurization System II
(eKAPS II) Controller
P/N: 52811-701

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Evaluation Test Report
For Cabin Pressure Control System
PN 52810-701

Document No: TR18-101

Rev: -

Page: 48 of 59



Seminole, OK 74868

ATD52811-701
REV A

enviro
SYSTEMS INCORPORATED

ATD52811-701

REVISION LEVEL: A

**TEST DATA SHEET FOR
CABIN AIR CONTROLLER
PN 52811-701**

UNIT PART NUMBER: 52811-701 SERIAL NUMBER: 05008
WORK ORDER/SALES ORDER NUMBER: _____

1. INTRODUCTION
A. PURPOSE
THIS DOCUMENT CONTAINS THE ACCEPTANCE TEST DATA FOR THE KAPS 1 CONTROLLER PN 52811-701.
B. SCOPE
THE TESTS IDENTIFIED IN ATD52811-701 ARE USED TO ASSURE THAT THE KAPS 1 CONTROLLER MEETS ALL FUNCTIONAL REQUIREMENTS. THE RESULTS OF THE ATP TESTS AND THEIR ASSOCIATED DATA ARE RECORDED IN THIS.

2. APPLICABLE DOCUMENTS
ATD52811-701 ACCEPTANCE TEST PLAN FOR KOLLSMAN AUTO-ON-DEMAND PRESSURIZATION SYSTEM 1 KAPS 1 CONTROLLER

3. NOMENCLATURE
SEE ATD52811-701

4. EQUIPMENT/DOCUMENTATION REQUIRED
SEE ATD52811-701

5. ENVIRONMENTAL TEST CONDITIONS
A. TEMPERATURE (ROOM): 70-88 +30°C/157°
B. RELATIVE HUMIDITY: 55-85% OR LESS

6. VISUAL INSPECTION
GENERAL APPEARANCE: _____ (PASS/FAIL) _____

7. WEIGHT
MEASURE AND RECORD THE WEIGHT. IT MUST BE LESS THAN OR EQUAL TO 2.35 LBS, MAX.
WEIGHT: 2.25 LBS

8. TEST RESULT
SEE ATD52811-701

9. POWER UP
POWER UP: _____ (PASS/FAIL) X

10. SOFTWARE CHECK
VERIFY SOFTWARE VERSION: _____ ☐
SOFTWARE CHECKSUM 4010204 _____ (PASS/FAIL) X
DATABASE CHECKSUM 8A201829 _____ (PASS/FAIL) X

CAGE CODE: **0B9E8**
(ProductCenter)

DATE: March 19, 2015

Page 3 of 6

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Evaluation Test Report
For Cabin Pressure Control System
PN 52810-701

Document No: TR18-101

Rev: -

Page: 49 of 59



Seminole, OK 74868

ATD52811-701
REV A

enviro
SYSTEMS INCORPORATED

ATD52811-701
REVISION LEVEL: A

TEST DATA SHEET FOR
CABIN AIR CONTROLLER
PN 52811-701

UNIT PART NUMBER: 52811-701 SERIAL NUMBER: _____
WORK ORDER/SKED ORDER NUMBER: _____

11. AIRINC-429 CHECK
SET THE AIRINC TRANSMITTER AND RECEIVER TO HIGH SPEED AIRINC.

AIRINC INPUT	LABEL	DATA	RATE	(PASS/FAIL)
127		02 32 00	150 MS	
203		00 00 00	50 MS	
204		00 00 00	50 MS	
206		03 20 00	100 MS	
235		04 04 04	100 MS	
270		00 00 11	100 MS	

AIRINC OUTPUT LABEL (PASS/FAIL)

127	
150	
151	
152	
203	
235	
270	
301	
302	

12. DISCRETE IO CHECK

DUMP	(PASS/FAIL)	
BIT CK	(PASS/FAIL)	
CONFIGURATION STRAPS	(PASS/FAIL)	
AIRINC INPUT CK	(PASS/FAIL)	
CABIN PRESSURE REV	(PASS/FAIL)	
MANUAL MODE	(PASS/FAIL)	
SQUAT	(PASS/FAIL)	
TAKE-OFF POWER	(PASS/FAIL)	
AUTO EXERCISE	(PASS/FAIL)	
HIGH ALTITUDE WAIRY	(PASS/FAIL)	

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(ProductCenter)

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Page 4 of 6

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Evaluation Test Report
For Cabin Pressure Control System
PN 52810-701

Document No: TR18-101

Rev: -

Page: 50 of 59

enviro
SYSTEMS INCORPORATED
Seminole, OK 74868

ATD52811-701
REV A

ATD52811-701
REVISION LEVEL: 8

TEST DATA SHEET FOR
CABIN AIR CONTROLLER
PN 52811-701

UNIT PART NUMBER: 52811-701 SERIAL NUMBER: _____
WORK ORDER/SALES ORDER NUMBER: _____

13. PROOF PRESSURE
PROOF PRESSURE APPLIED FOR 5 MINUTES, MINIMUM 5 MINUTES
59.000

14. CALIBRATION CHECKS

Calibration Point	Value	Tolerance	Reading
P _{in} = 31 inHg, P _o = 31 inHg	31 inHg	±0.15 inHg	Color <u>31.00</u> inHg
P _{in} = 30 inHg, P _o = 30 inHg	30 inHg	±0.15 inHg	Differential <u>0.02</u> inHg
P _{in} = 25 inHg, P _o = 25 inHg	25 inHg	±0.15 inHg	Differential <u>5.82</u> inHg
P _{in} = 17 inHg, P _o = 17 inHg	17 inHg	±0.15 inHg	Differential <u>16.02</u> inHg
P _{in} = 10 inHg, P _o = 10 inHg	10 inHg	±0.15 inHg	Differential <u>15.80</u> inHg
P _{in} = 10 inHg, P _o = 25 inHg	20 inHg	±0.15 inHg	Color <u>25.81</u> inHg
P _{in} = 5 inHg, P _o = 25 inHg	20 inHg	±0.15 inHg	Differential <u>20.00</u> inHg
P _{in} = 5 inHg, P _o = 20 inHg	15 inHg	±0.15 inHg	Color <u>19.95</u> inHg
P _{in} = 5 inHg, P _o = 15 inHg	10 inHg	±0.15 inHg	Color <u>14.89</u> inHg
P _{in} = 5 inHg, P _o = 5 inHg	5 inHg	±0.15 inHg	Color <u>5.99</u> inHg

15. PUMP CHECKS

	Value	Tolerance	Actual
PUMP PRESSURE	12.00 inHg	MINIMUM	<u>18.04</u> inHg
PUMP VACUUM	12.00 inHg	MINIMUM	<u>16.23</u> inHg
PRESSURE FLOW	2.75 scfh	± 1.0 scfh	<u>2.25</u> scfh
VACUUM FLOW	2.75 scfh	± 1.0 scfh	<u>2.25</u> scfh

CAGE CODE: **0B9E8** DATE: March 19, 2015 Page 5 of 6
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	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
	Document No: TR18-101	Rev: -

 Seminole, OK 74868	ATD52811-701 REV A
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ATD52811-701

enviro
SYSTEMS INCORPORATED

REVISION LEVEL: A

TEST DATA SHEET FOR
CABIN AIR CONTROLLER
PN 52811-701

UNIT PART NUMBER: 52811-701 SERIAL NUMBER: _____

WORK ORDER/SALES ORDER NUMBER: _____

LEAK CHECKS

	Unit	Source	Actual	
PM PRESSURE	2.0 KNOTS/HR	MAXIMUM	<u>0.7</u>	KNOTS/HR
PM VACUUM	2.0 KNOTS/HR	MAXIMUM	<u>0.3</u>	KNOTS/HR
PS VACUUM	2.0 KNOTS/HR	MAXIMUM	<u>0.7</u>	KNOTS/HR

DATE: 3/2/16 TEST OPERATOR SIGNATURE: _____

HEIGHT VERIFIED BY: _____

29.82
1425
T507

CAGE CODE: 0B9E8	DATE: March 19, 2015	Page 6 of 6
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Evaluation Test Report
For Cabin Pressure Control System
PN 52810-701

Document No: TR18-101

Rev: -

Page: 52 of 59



ATD52812-701

REVISION LEVEL: _____

**TEST DATA SHEET FOR
OUTFLOW VALVE, 3"
P/N 52812-701**

UNIT PART NUMBER: 52812-701 SERIAL NUMBER: 00119
WORK ORDER/SALES ORDER NUMBER: _____

1. SETUP

ALL THE REQUIREMENTS OF SECTION 1.A THROUGH 1.D OF ATP52812-701

SECTION 1.A (PASS/FAIL) PASS
SECTION 1.B (PASS/FAIL) PASS
SECTION 1.C (PASS/FAIL) PASS
SECTION 1.D (PASS/FAIL) PASS

2. PRELIMINARY TESTS

A. VISUAL INSPECTION (PASS/FAIL) PASS
B. DIAPHRAGM POSITION (PASS/FAIL) PASS
C. WEIGHT (1.7 LBS MAX.) 1.50 LBS

3. PROOF PRESSURE

A. REFERENCE CHAMBER (TIME) 5 MINUTES
B. MAX DELTA P HOUSING (TIME) 5 MINUTES

4. LEAK TESTS

LEAK RATE SHALL NOT EXCEED 2KT/MIN (0.091 INHG/MIN). TEST EQUIPMENT LEAK RATE MAY BE SUBTRACTED TO MEET TOLERANCE.

A. REFERENCE CHAMBER (LEAK RATE) .3
B. REFERENCE CHAMBER (VACUUM) (LEAK RATE) .1
C. MAX DELTA P VALVE (LEAK RATE) .1

5. LIMITER VALVE TESTS

THE VALVE IS MOUNTED VERTICALLY IN THE EKAPS VIBRATION FIXTURE (TE #7601-0104) USING THE THREE-INCH VALVE ADAPTER PLATE FOR THIS TEST. ALIGN THE VALVE OVER THE LOCATING PINS AND TIGHTEN THE FOUR TOGGLE HOLD-DOWN CLAMPS AND TWO THUMBSCREWS SECURELY. TURN ON THE ELECTRIC VIBRATOR. VIBRATION IS USED FOR THIS SECTION OF THE ATP.

A. MAX DELTA P VALVE SET POINT (6.5±0.1 PSI/487.9-494.6 KT) (PASS/FAIL) 488.4 PASS
B. MAX ALTITUDE VALVE SET POINT (14,300±300 FT) (PASS/FAIL) 14,303 PASS
C. MAX ALTITUDE VALVE RETURNED TO WITHIN +200/-1,000 FT. OF ITS ORIGINAL SET POINT AFTER DECOMPRESSION TEST (PASS/FAIL) PASS

NOTE: WHEN PERFORMING THE MAX ALTITUDE VALVE DECOMPRESSION TEST, A DELAY OF 30-45 SECONDS PRIOR TO THE ALTITUDE INCREASING IS NORMAL

MAX ALTITUDE VALVE RETEST (MUST BE WITHIN 14,300 300 FT TOLERANCE)

SET POINT 14,220

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 53 of 59



ATD52812-701

REVISION LEVEL: -

**TEST DATA SHEET FOR
OUTFLOW VALVE, 3"
P/N 52812-701**

UNIT PART NUMBER: 52812-701 SERIAL NUMBER: _____

WORK ORDER/SALES ORDER NUMBER: _____

D. MAXIMUM DELTA P LIMITER CRACK POINT
LEAK RATE SHALL NOT EXCEED 2KT/MIN (0.091 INHG/MIN). TEST EQUIPMENT LEAK RATE MAY
BE SUBTRACTED TO MEET TOLERANCE.

SET PRESSURE DIFFERENTIAL BETWEEN 485 AND 487 KNOTS (16.519 TO 16.641 INHG).
SELECT STARTING ALTITUDE 14,820 FEET FOR ATP PROCEDURE. (PASS/FAIL) 12 PASS

E. MAX ALTITUDE LIMITER CRACK POINT
CRACKING POINT MUST BE ABOVE 13,500 FT. (PASS/FAIL) 14,119 PASS

DATE: 2-12-18 TEST OPERATOR SIGNATURE: _____

WEIGHT VERIFIED BY: _____



Evaluation Test Report
For Cabin Pressure Control System
PN 52810-701

Document No: TR18-101

Rev: -

Page: 54 of 59



ATD52812-701

REVISION LEVEL: -

**TEST DATA SHEET FOR
OUTFLOW VALVE, 3"
P/N 52812-701**

UNIT PART NUMBER: 52812-701 SERIAL NUMBER: 00120
WORK ORDER/SALES ORDER NUMBER:

1. SETUP

ALL THE REQUIREMENTS OF SECTION 1.A THROUGH 1.D OF ATP52812-701

SECTION 1.A (PASS/FAIL) PASS
SECTION 1.B (PASS/FAIL) PASS
SECTION 1.C (PASS/FAIL) PASS
SECTION 1.D (PASS/FAIL) PASS

2. PRELIMINARY TESTS

A. VISUAL INSPECTION (PASS/FAIL) PASS
B. DIAPHRAGM POSITION (PASS/FAIL) PASS
C. WEIGHT (1.7 LBS MAX.) 1.50 LBS

3. PROOF PRESSURE

A. REFERENCE CHAMBER (TIME) 5 MINUTES
B. MAX DELTA P HOUSING (TIME) 5 MINUTES

4. LEAK TESTS

LEAK RATE SHALL NOT EXCEED 2KT/MIN (0.091 INHG/MIN). TEST EQUIPMENT LEAK RATE MAY BE SUBTRACTED TO MEET TOLERANCE.

A. REFERENCE CHAMBER (LEAK RATE) .3
B. REFERENCE CHAMBER (VACUUM) (LEAK RATE) .1
C. MAX DELTA P VALVE (LEAK RATE) .1

5. LIMITER VALVE TESTS

THE VALVE IS MOUNTED VERTICALLY IN THE EKAPS VIBRATION FIXTURE (TE #7601-0104) USING THE THREE-INCH VALVE ADAPTER PLATE FOR THIS TEST. ALIGN THE VALVE OVER THE LOCATING PINS AND TIGHTEN THE FOUR TOGGLE HOLD-DOWN CLAMPS AND TWO THUMBSCREWS SECURELY. TURN ON THE ELECTRIC VIBRATOR. VIBRATION IS USED FOR THIS SECTION OF THE ATP.

A. MAX DELTA P VALVE SET POINT (6.5±0.1 PSI/487.9-494.6 KT) (PASS/FAIL) 488.7 PASS
B. MAX ALTITUDE VALVE SET POINT (14,300±300 FT) (PASS/FAIL) 14,224 PASS
C. MAX ALTITUDE VALVE RETURNED TO WITHIN +200/-1,000 FT. OF ITS ORIGINAL SET POINT AFTER DECOMPRESSION TEST (PASS/FAIL) PASS

NOTE: WHEN PERFORMING THE MAX ALTITUDE VALVE DECOMPRESSION TEST, A DELAY OF 30-45 SECONDS PRIOR TO THE ALTITUDE INCREASING IS NORMAL

MAX ALTITUDE VALVE RETEST (MUST BE WITHIN 14,300 300 FT TOLERANCE)

SET POINT 14,284

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 55 of 59

ATD52812-701



REVISION LEVEL: -

**TEST DATA SHEET FOR
OUTFLOW VALVE, 3"
P/N 52812-701**

UNIT PART NUMBER: 52812-701 SERIAL NUMBER: _____

WORK ORDER/SALES ORDER NUMBER: _____

D. MAXIMUM DELTA P LIMITER CRACK POINT
LEAK RATE SHALL NOT EXCEED 2KT/MIN (0.091 INHG/MIN). TEST EQUIPMENT LEAK RATE MAY
BE SUBTRACTED TO MEET TOLERANCE.
SET PRESSURE DIFFERENTIAL BETWEEN 485 AND 487 KNOTS (16.519 TO 16.641 INHG).
SELECT STARTING ALTITUDE 14,820 FEET FOR ATP PROCEDURE. (PASS/FAIL) 1 Pass

E. MAX ALTITUDE LIMITER CRACK POINT
CRACKING POINT MUST BE ABOVE 13,500 FT. (PASS/FAIL) 19,228 Pass

DATE: 2-12-18 TEST OPERATOR SIGNATURE: 

WEIGHT VERIFIED BY: _____

	Evaluation Test Report For Cabin Pressure Control System PN 52810-701	
Document No: TR18-101	Rev: -	Page: 56 of 59

APPENDIX C – CONTROLLER SCREEN CAPTURES

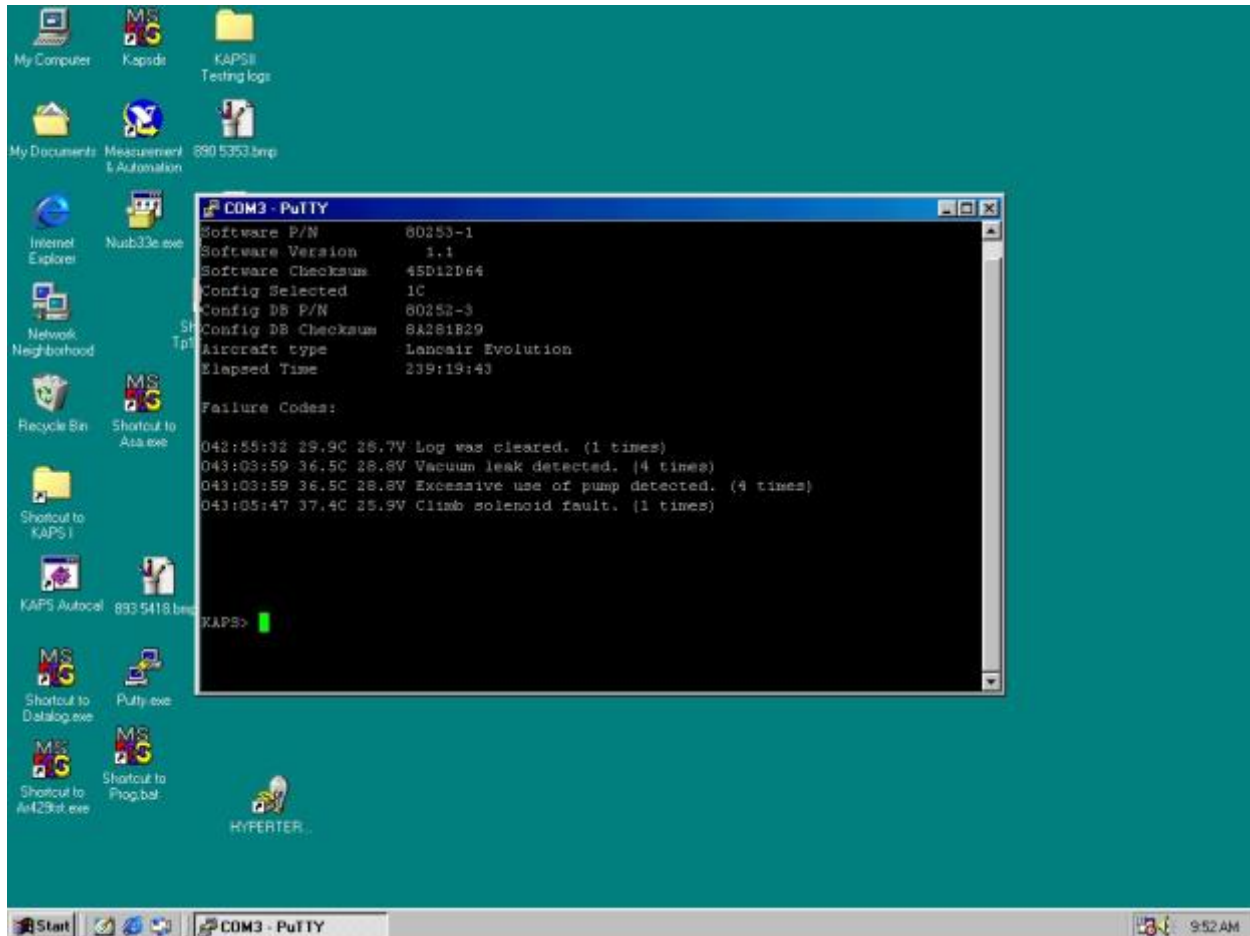


Figure 39 – Pre-Test Error Logs

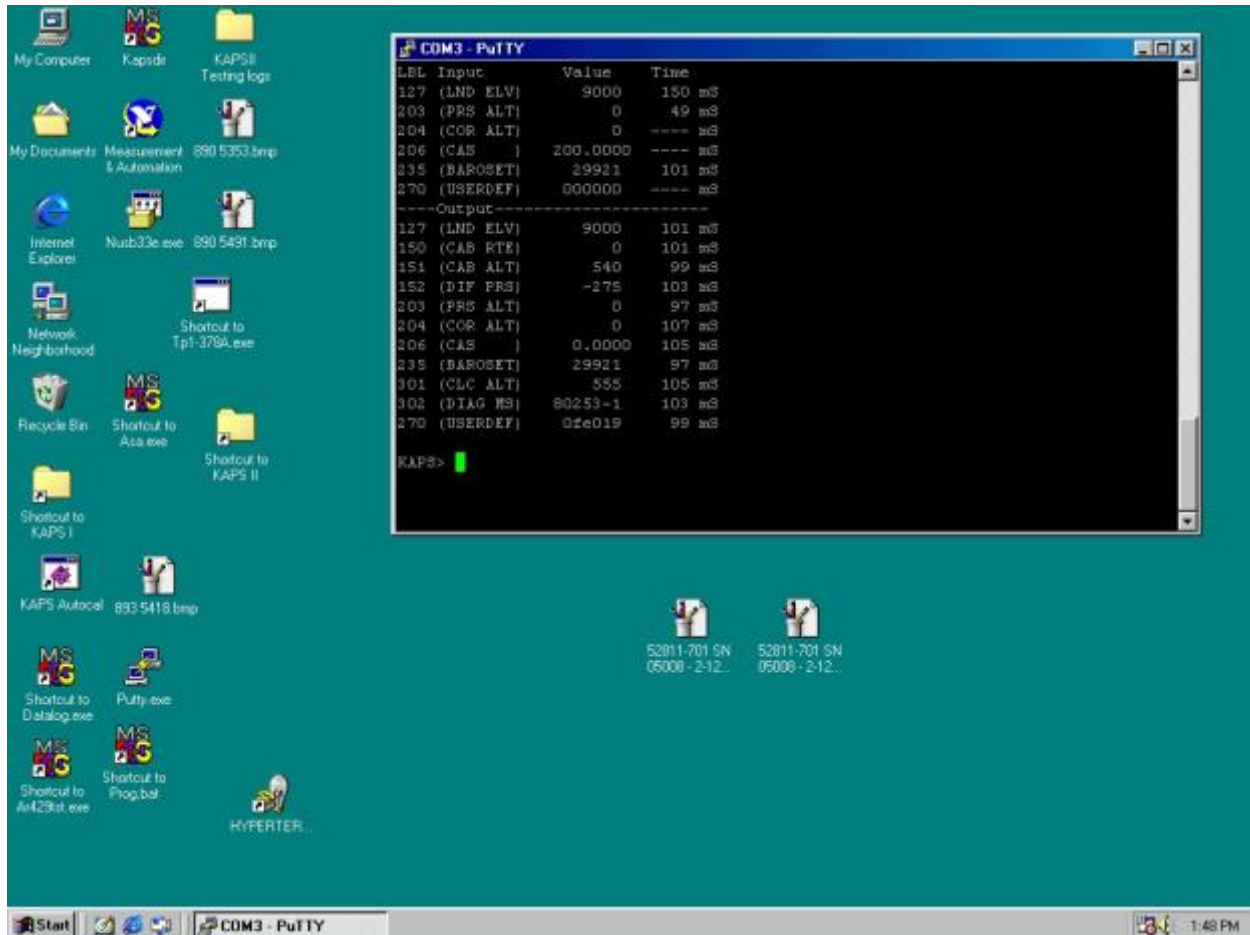


Figure 40 – ARINC Screen

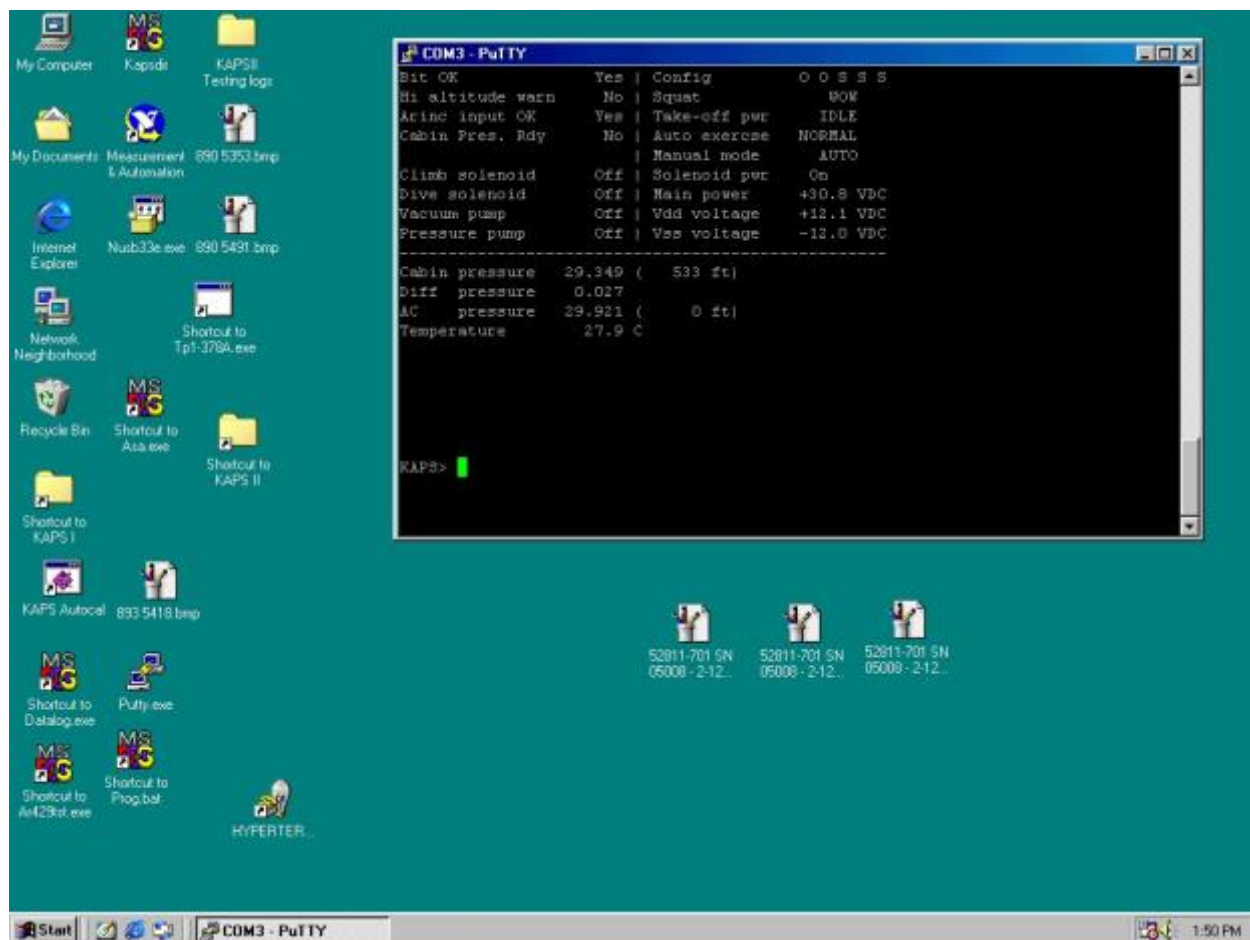


Figure 41 – IO Screen

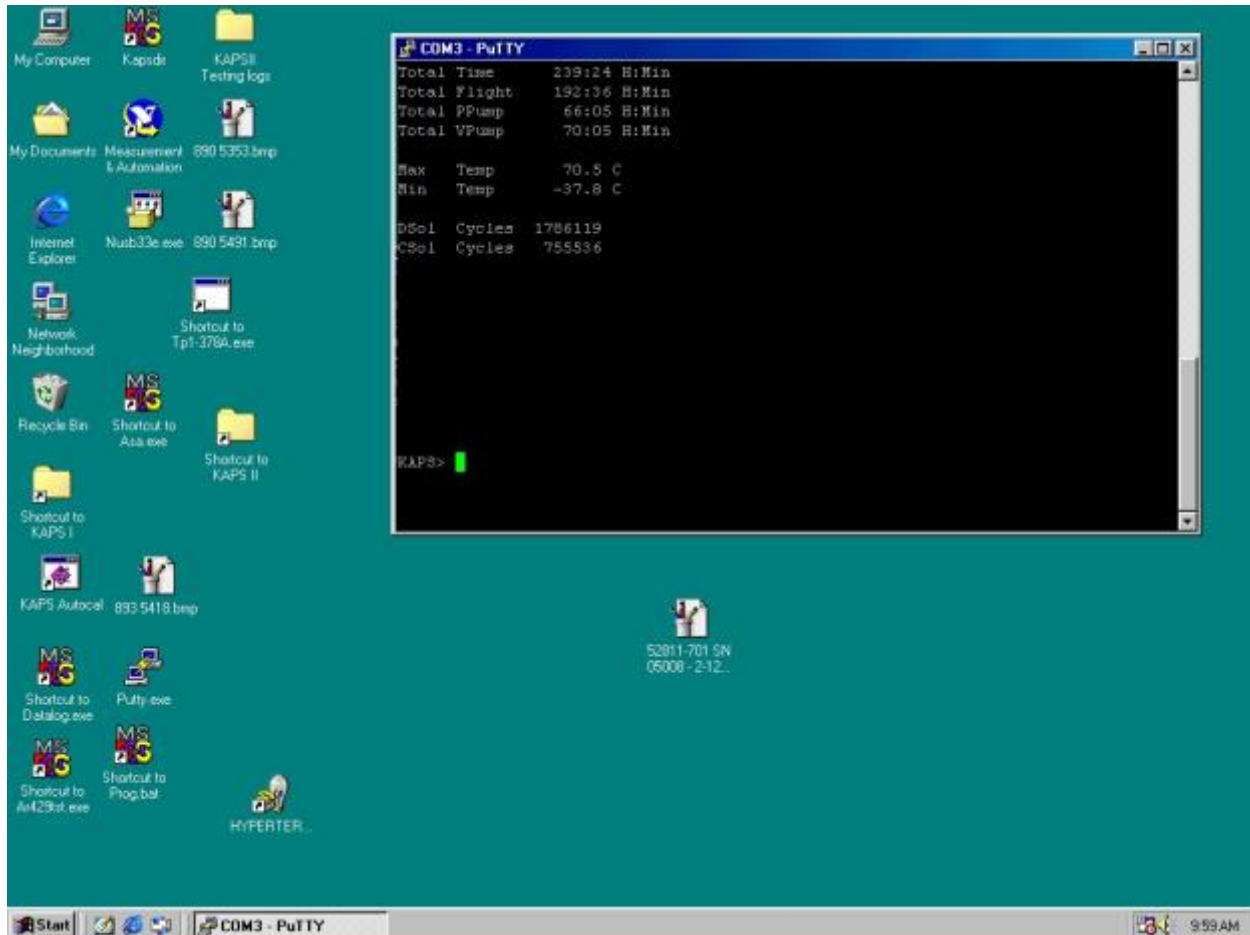


Figure 42 – Reliability Screen