



AIRSYS HVAC System
Commissioning Check List¹ (Rev 3.2)



Site name or building serial #: _____

Name of Tester: _____

ASLLC.2 Serial #: _____

Title/Position: _____

Date Tested: _____

Contact information: e. _____

¹Checklist applicable for ASLLC software revision 46 and higher.

ph. _____

1. Execute Step Test (verifies all four functions of each WPU)

- 1.1. HVAC #1 Supply Fan
1.2. HVAC #1 Heater
1.3. HVAC #1 Mechanical Cooling
1.4. HVAC #1 Outside Air Damper
1.5. HVAC #2 Supply Fan
1.6. HVAC #2 Heater
1.7. HVAC #2 Mechanical Cooling
1.8. HVAC #2 Outside Air Damper

2. Turn ON the HVAC System

3. Verify Temp and Humidity sensor reading and Set Point

- 3.1. Primary Indoor Temp sensor (r t i)
3.2. Humidity sensor (H U)
3.3. External (outside) Temp sensor (E t)
3.4. HVAC #1 Supply Air sensor (S u)
3.5. HVAC #2 Supply Air sensor (S u 2)
3.6. Confirm indoor temperature Set Point (S t P)
3.7. Backup Indoor Temp sensor (r t 2)

4. Verify Signal from Generator

5. Set The System Clock

6. Verify Smoke/Fire Alarm





7. Verify HVAC1/HVAC2 Alarms

8. Verify DC-Failover (if installed)



9. Clear Alarm History (Optional)


10. Fill out Warranty Card and send to Tempest Telecom

The pLD User Interface

Button and LED	Function Description	Button and LED	Function Description
	1. Confirm or review the value 2. When the LED is on, an alarm has been triggered		Decrease value or go to next display
	Increase value or go back to previous display		1. Press together to return to the main menu 2. When both of these buttons are lit, the system is on. When both are flashing, the system is in comfort mode.

1. Execute Step Test


- Press **UP** and **Sel** buttons together for 3 seconds → The pLD will display 
- Press **Sel** button → The pLD will display 
- Press **Up** (or **Down**) to change value and **Sel** to confirm

When system is ON, SFL is displayed. Press Up button to get to 

ACTION	LCD Value		NOTES
	WPU #1	WPU #2	
Turns on Supply Fan	1	5	
Turns on Heater	2	6	May take a few minutes before you feel warm air
Turns on Compressor	3	7	IMPORTANT: Let compressor run for <u>at least one minute</u> before going to next step
Opens Fresh Air Damper	4	8	HINT: With the lights off in the shelter, you can see indirect daylight via opening behind exhaust grill

2. Turn ON the HVAC System

Note: make sure the breakers on the outside units are flipped on

- Press **Up** and **Down** together to return to the Main Screen (*room temperature will be displayed*)
- Press **Down** until the screen displays 
- Hold **Sel** button down for 3 seconds
 - After a brief delay, the **Up** and **Down** LEDs will light up, indicating the system is now on.

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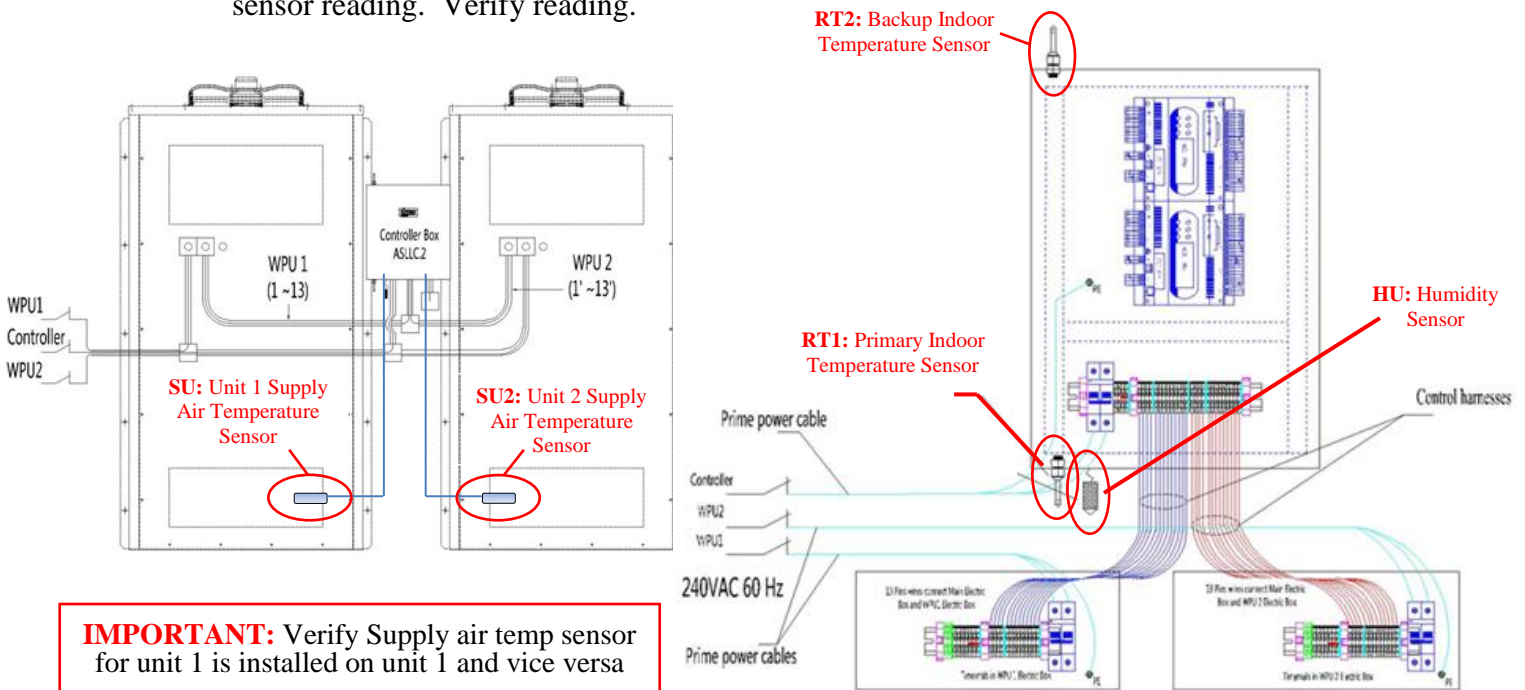
3. Verify Temp and Humidity sensor reading and Set-Point

- Press **Up** and **Down** together to return to the default display (indoor temperature)
- Press **Up** or **Down** to scroll through the main menu
- Press **Sel** to display reading for Humidity, Outdoor Temp, and Supply Air Temp

AIRSYS WPU Main Menu

Sensor	Display	R/W	Description	Comments
RT1	77.3	R	Current indoor temperature; default display	Press UP and DOWN together to return to indoor temp. Press DOWN to access other menus.
	COMF	R/W	Comfort mode ON/OFF	
	COMF t	R/W	Comfort mode run time	
	SP 2	R/W	Set comfort mode indoor temperature	
HU	H u	R	Indoor Humidity	Hint: use the "Huff Test"
ET	E t	R	Outdoor temperature	
SU	S u	R	Unit 1 Supply air temperature	Important: Wrap hand around supply air sensor to verify that it is reading temperature and that the sensor is mounted to the correct WPU
SU2	S U 2	R	Unit 2 Supply air temperature	
	SPE		Access other menus for viewing and modifying preconfigured system parameters	
	On	R/W	System On/Off	

- Scroll to **SPE** and Press **Sel** → The pLD will display **S t P** (temperature set-point)
- Verify the set-point is set to 77F and press **Sel** to confirm
- Press **Down** until **r t 2** (Room temp 2) is displayed, press **Sel** to display backup temp sensor reading. Verify reading.



IMPORTANT: Verify Supply air temp sensor for unit 1 is installed on unit 1 and vice versa

4. Verify Signal from the Generator

Important: Incorrect signal from generator will prevent the 2nd unit from cooling

- From *r t 2* press **Down** until *d 5 R* is displayed, Press **Sel** to display generator status
- If the generator is not running or generator signal is not wired, your screen should display *0 F F*
- Press the **Sel** button to return to *d 5 R*

5. Set the System Clock

- From *d 5 R* Press **Down** until appropriate parameter is displayed
- Press **Sel** to select each parameter
- Press **Up** or **Down** to change value → Press **Sel** button to confirm entry

24 Hour Clock! (eg. 15 For 3p)

Display	R/W	Description	Range
<i>n 1 5</i>	R/W	Display and set the current time/date – hour	0–23
<i>n 1 6</i>	R/W	Display and set the current time/date – minute	0–59
<i>n 1 7</i>	R/W	Display and set the current time/date – year	0–99
<i>n 1 8</i>	R/W	Display and set the current time/date – month	0–12
<i>n 1 9</i>	R/W	Display and set the current time/date – day	0–31

6. Verify Smoke/Fire Alarm Signal

- Press the test bottom on the smoke/fire detector. The system should completely shut down (Fans and compressors off, damper closed).
- The Smoke/fire Alarm is connected to 41 and 5 on the controller terminal. If the smoke/fire detector does not have a test bottom, disconnect the 41 wire, the system should shut down.

7. Verify HVAC1/HVAC2 Alarms

HVAC1:

- Turn off the HVAC1 prime power breaker at panel or unit
- Verify NC terminal 46 and 47 is Open

HVAC2:

- Turn off the HVAC2 prime power breaker at panel or unit
- Verify NC terminal 49 and 50 is Open

8. Verify DC Failover (If Installed)

- **Verify AC Input Phase**
 - Verify ~0V AC across left side of QF2 breaker against left side of QF3 breaker
 - Verify ~230V AC across left side of QF2 breaker against right side of QF3 breaker
- **Failover Function**
 - Turn off breaker QF2 and QF3
 - Verify controller display is lit after ~15sec



QF2, QF3
Breaker

9. Clear Alarm History (Optional)

!! Warning!! → Alarm history is collected because it can be very helpful in identifying a problem with the system. The alarm history should never be arbitrarily cleared by an operator. Only an AIRSYS authorized service technician should clear the alarm history after all the alarms stored in history have been recorded.

- When **SPE** is displayed press **Down** and **Sel** together → the pLD will display a flashing **□** (if you did not get flashing **□**, return to **SPE** and try again).
- Press **Up** until the screen displays **6** and press **Sel** → the pLD will display **L □ I**
- Press **Up** to display **L □ 5** and press **Sel** → the terminal will display **F □ I**
- Press **Up** to display **F 3 R** → Press **Sel** → **n □** will display on the pLD
- Press **Up** to reset history → the pLD will Flash **PE 5** and immediately return to **n □**

10. Fill out Warranty Card and send to Tempest Telecom

- Fill warranty card **from laptop or mobile:**
<http://tempesthvac.com/support/warranty-registration/>
- **Mail to:** 136 W. Canon Perdido St., Suite 100, Santa Barbara, CA 93101
- **Scan and email:** HVACSupport@tempesttelecom.com

Tempest HVAC Support

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