AIRSYS Lead/Lag Controller Software Upgrade Guide

For Controller Models ASLLC.2, ASLLC.2.48, ASLLC.2A, and ASLLC.2A.48

Introduction:

- All AIRSYS lead/lag controllers can gain additional functions and improvements by upgrading the control software.
- Software upgrades require a Smart Key loaded with the latest software. The Smart Key is available from AIRSYS to service contractors and customers to perform field software upgrades and can be loaned for up to 90 days without charge. For more details, please contact ASNsupport@air-sys.com.
- Software upgrade resets all parameters to factory default.
- Follow the instructions carefully. If you encounter any difficulties, please contact AIRSYS Support at ASNsupport@air-sys.com or (855) 874-5380

Figure 1: Carel Smart Key

Step 1: Install Temp Sensors

Skip to Step 2 if supply air temperature sensors are already installed.

a. For both HVAC units, mount the supply air temperature sensor to the supply air grill (Figure 2).
b. Connect the sensor to the B1 and GND terminals on the corresponding controller module (Unit 1 to HVAC1, Unit 2 to HVAC2). See Figure 3 for wiring.
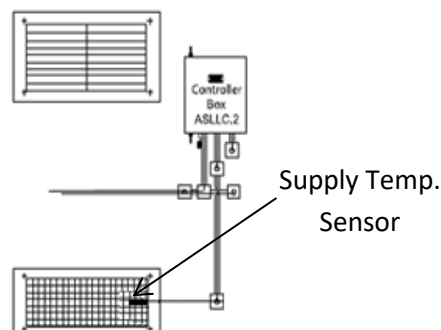

Figure 2: Supply Temp Sensor Location

Step 2: Upgrade Unit #2

Note: Unless stated otherwise, all references in this step refer to the unit 2 controller module (labelled HVAC2).

a. Disconnect J1 and J6 (Figure 3).
b. Insert Smart Key into J5.
c. Move J7 from Unit #1 (HVAC1) to Unit #2 (HVAC2). See Figure 3 for connector locations.
d. Reconnect J1.

e. Wait until the arrow shaped indicator light on the Smart Key is steady green (see Figure 4).

f. Press "Start" on the Smart Key. The arrow will flash with increasing frequency while the software is loading. A "chirping" sound indicates the software has finished loading.

g. Remove the Smart Key.

h. Reset the controller by disconnecting and reconnecting J1 power.

i. The screen will display $E\,0$. After ~15 seconds, the display will change to 0.0.

j. Press **Up** to scroll to $S\,P\,t$

k. Press **Down** <u>and</u> **Sel** together. If done correctly, a flashing 0 will appear on the display, otherwise press **Up** <u>and</u> **Down** together to return to step j.

l. Press **Sel**, $S\,t\,P$ should appear.

m. Press **Up** to scroll to $d\,E\,F$. Press **Sel.** The screen should display $O\,F\,F$.

n. Press the **Up** button and the correct indoor temperature should be displayed. If the display still reads $0\ 0$ after 30 seconds, return to step j.

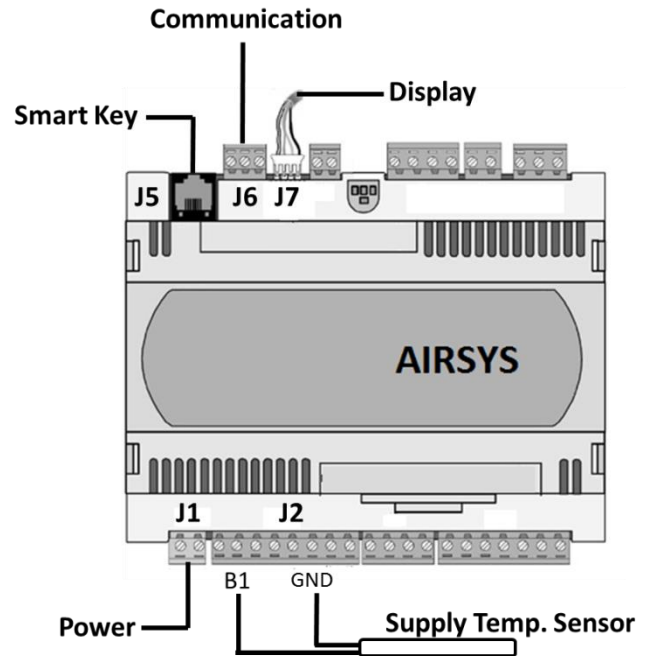## Step 3: Upgrade Unit #1

Note: Unless stated otherwise, all references in this step refer to the unit 1 controller module (labelled HVAC1).

a. Disconnect J1.

b. Insert the Smart Key into J5.

c. Move J7 from unit #2 to unit #1 (See Figure 2).

d. Repeat steps d-n from "Upgrade Unit #2" for the Unit #1 controller.

e. Reconnect J6 on unit #2.

Step 4: <u>FOR DC CONTROLLERS ONLY</u>

Skip to Step 5 unless the controller runs on **48VDC** (model ASLLC.2(A)**.48**).

a. From the indoor temp display, press **Up** to scroll to $S\,P\,t$.

b. Press the **Up** <u>and</u> **Sel** buttons together. If done correctly the screen will display $t\,E\,S$. Otherwise press **Up** <u>and</u> **Down** together to return to step a.

c. Press **Up** until the terminal displays $S\,F\ 1$ and press **Sel.**

d. Press **Up** to change 1 to 0 and press **Sel**.

Figure 3: Controller Board Reference

Position Smart Key with the arrow pointing towards controller.
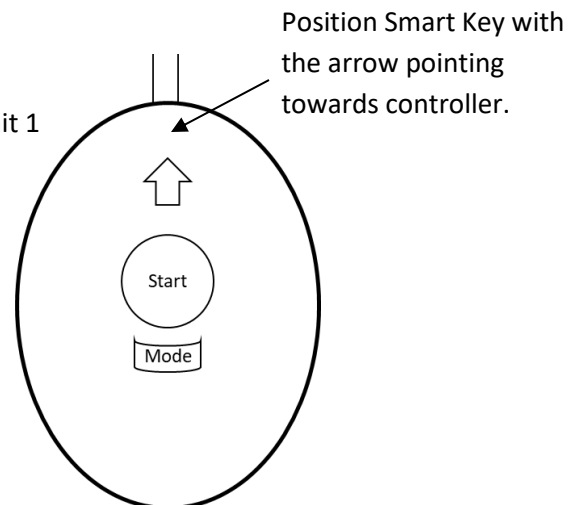
Figure 4: Insert the Smart Key

Step 5: Step Test - Verify proper operation

a. Turn the controller breaker (QF1) off. Wait 5 Seconds and turn it back on.

b. The screen will display *E 0*. After ~15 seconds, the display should display the indoor temperature.

c. Hold **Up and Sel** together for 3 seconds, the display should change to *C 0 d*.

d. Press **Sel.** The current step should be displayed (Default 0). Use **Up** or **Down** to change the step and press **Sel** to confirm. Once confirmed, the screen will revert to *C 0 d* and selected step will start.

e. All steps listed in Table 1 should be completed to verify operation

Table 1: Step Test

Step	Description	Notes
1	Supply Fan	Full speed after few seconds
2	Heater	May take up to 1min to feel warm air
3	Compressor	Must run a **minimum** of 1min
4	Outdoor Damper	When lights are off, indirect daylight can be seem via opening behind exhaust grill
5-8	Repeats for 2nd Unit	Same as 1-4

Step 6: Turn system back to ON to Automatic mode

a. Press **Up and Down** together to get back to the Indoor Temperature.

b. Press **Down** to find *O F F*.

c. Hold **Sel** for 3 seconds. Both up and down buttons should be lit and active alarms will be displayed if there are any. Refer to the WPU Troubleshooting Guide for alarm troubleshooting.

d. Press **Up and Down** together to return to the indoor temperature.