

ASLLC Alarm Detail

General

This document describes all alarms inputs and outputs available for all AIRSYS Lead/Lag Controllers (ASLLC) sold in North America. Software version dependent functions will be in *Italics*. Consult the front sticker of the ASLLC or the operations manual for instructions on accessing the different menus to change alarm settings.

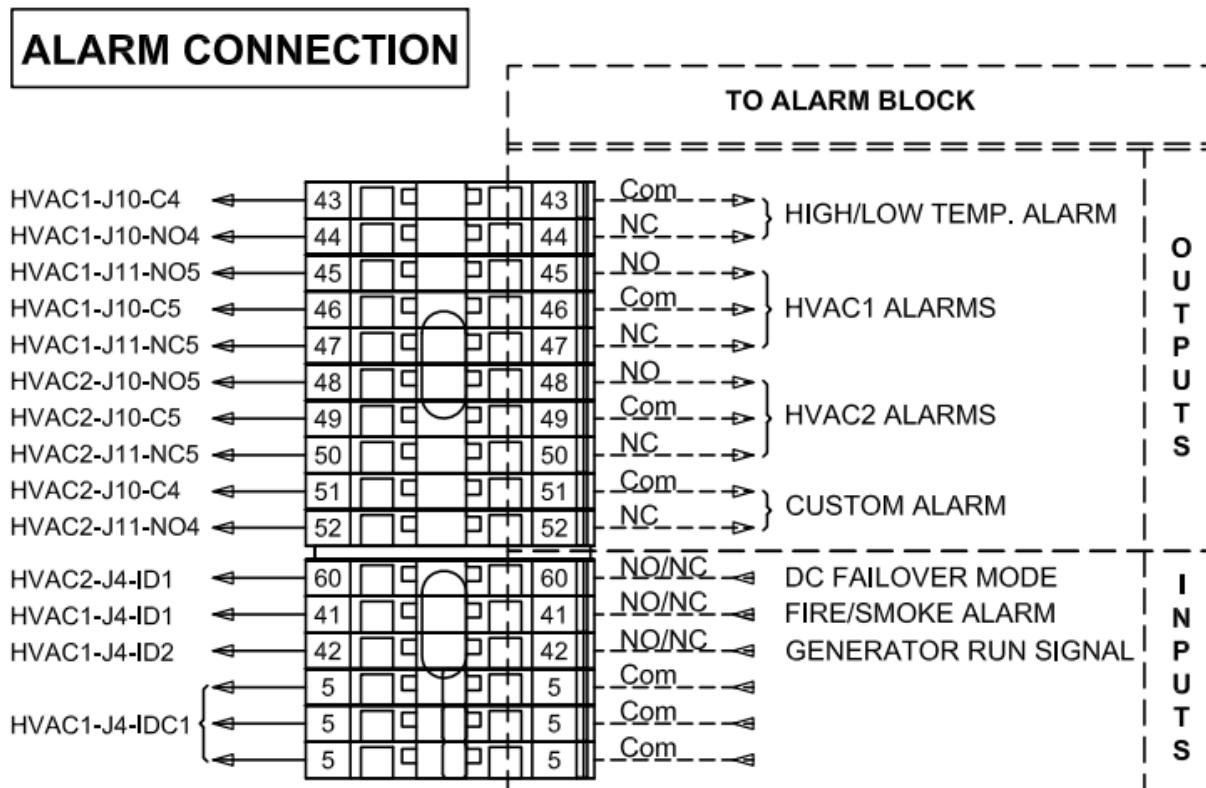
Software Version

The ASLLC software version number is in the format of "13Bxx" where "xx" is the version suffix. To determine the software version suffix, follow these steps:

1. From the main menu use the **Up** or **Down** buttons until the PLD displays **S P E**, then press the **Sel** button
2. Press the **Down** button until **U E Z** is displayed and then press **Sel**. This will display the software version suffix.

Alarm Terminals

A diagram of the alarm input and output terminals is shown below.



ASLLC Alarms

A listing of all ASLLC alarms and any alarm contacts that they output to is shown below.

| Code ¹ | Description | Output Delay | Alarm Contact Reporting | | |
|-------------------|--|--------------|-------------------------|--------------------|--------------------|
| | | | High/low temp. Alarm | HVAC 1 Major Alarm | HVAC 2 Major Alarm |
| A02 ⁵ | Low pressure 1 ⁵ | 60/10s | | X | |
| A03 ⁵ | High pressure 1 ⁵ | 2s | | X | |
| A04 ⁵ | Low pressure 2 ⁵ | 60/10s | | | X |
| A05 | Smoke/Fire | None | | | |
| A06 ⁵ | High pressure 2 ⁵ | 2s | | | X |
| A07 | High temperature | 300s | X | | |
| A08 | Low temperature | 300s | X | | |
| A09 ² | Prime power outage (Only if DC Failover is used) | 40s | | X | X |
| A10 ² | Supply fan overload 1 | 0s | | X | |
| A11 ² | Supply fan overload 2 | 0s | | | X |
| A15 | Dirty air filter1 | 10s | | | |
| A16 | Dirty air filter2 | 10s | | | |
| A17 | pLAN alarm | 30s | | | X |
| A18 | Clock card alarm | 60s | | | |
| A19 | Humidity alarm | 60s | | | |
| A20 | Indoor temperature sensor defective | 60s | | | |
| A21 | Backup indoor temp. sensor defective | 60s | | | |
| A20/A21 | Indoor & backup indoor temp. sensors defective | 60s | | X | X |
| A22 | Outdoor temp. sensor defective | 60s | | | |
| A23 | 2nd compressor run | 5s | | | |
| A24 | Damper Failure 1 | 60m | | | |
| A25 | Damper Failure 2 | 60m | | | |
| A26 | HVAC 1 supply air temp. sensor defective | 60s | | | |
| A27 | HVAC 2 supply air temp. sensor defective | 60s | | | |
| A28 | Generator run | 5s | | | |
| A29 ³ | HVAC1 air flow defective or DC part powered off | 30s | | X | |
| A30 ³ | HVAC2 air flow defective or DC part powered off | 30s | | | X |
| A31 ³ | HVAC1 AC part powered off alarm | 30s | | X | |
| A32 ³ | HVAC2 AC part powered off alarm | 30s | | | X |

Output Alarms

Output alarms are dry contact outputs from the ASLLC to a remote monitoring block/station.

High/Low Temp Alarm

- A high temp alarm will trigger when the indoor temperature has exceeded the high temperature setpoint for at least 1 minute. The default high temp setpoint is 18°F above the main setpoint (S_{HTP}) and can be changed through H_{TP} in the E Menu.
- A low temp alarm will trigger when the indoor temperature has dropped below the low temperature setpoint for at least 1 minute. The default high temp setpoint is 34°F below the main setpoint (S_{LTP}) and can be changed through L_{TP} in the E Menu. The default output setting is Normally Closed (NC), which can be changed to Normally Open (NO) through $H_{TP}E$ in the D Menu.

HVAC1 and HVAC2 Alarms

An HVAC alarm indicates one or more major alarm that prevents that unit from cooling. This includes:

- High and low refrigerant pressure
- Power loss
- Fan overload / airflow alarm
- Communication to HVAC2 fail, will trigger HVAC2 alarm
- Failure of both indoor and backup indoor temperature sensors.
- *13B40 and earlier: Humidity and Damper Fail*

Note: if only one contact slot is available for remote monitoring, you may wire both HVAC alarm in series if NC or in parallel if NO.

Two Compressor Run Alarm (*13B80 and Later: Customizable Alarm Output*)

The two compressor run alarm indicates that the lag unit has come on to assist the lead unit. If the system is sized for lead/lag operation, this alarm may indicate a loss of redundancy.

13B80 and later: The two compressor run alarm can be customized to output any alarm A02-A32. This can be used to provide an extra output for the smoke/fire alarm (A05) or used to monitor any of the filters (A15 or A16). To customize the alarm output, access *U5E* under the L04 Menu and input the alarm number needed for monitoring. For example, changing to 5 will trigger this output whenever the Smoke Alarm (A05) is triggered.

Input Alarms

Input Alarms are dry contacts used to inform the ASLLC of alarms that are present in the building and change system behavior accordingly.

DC Failover Input

This alarm is only applicable when the DC failover is installed. This alarm input informs the controller that power is only available through the DC inverter. The controller will only run the supply fan and outdoor air damper. Alarm code A09 (DC failover mode) will display if this alarm is triggered.

Smoke/Fire Alarm Input

This alarm input informs the controller that the smoke/fire detector has been triggered. All components will immediately shut down and the outside air damper will fully close until the alarm is no longer active. The default setting is NC. Access *SFE* under the D Menu to change to NO. Alarm code A05 (Smoke/Fire Alarm) will display if this alarm is triggered.

Note: this is an input only and will not work as an output to a remote monitoring station.

Generator Run Input

This alarm input should be wired from the controller to the ATS or generator to inform the system that the generator is running. The outside air damper will fully close to prevent diesel fumes from entering the building and only one HVAC unit will be permitted to run to minimize generator load. There will also be a three minute delay before the unit will be allowed to run the compressor. The default setting is NO. Access *DE* under the D Menu to change to NC. If the generator can handle the load of both, the second compressor can be enabled in *CSE* under the D Menu.

13B46 and later: Alarm code A28 (Generator Run Alarm) will display if this input is triggered.