

**LOW TEMP ALARM WITH DELAY TIME**  
**08-22-2007**

Installation instructions for retrofit of low temperature alarm with time delay in a standard Sahara oven control panel.

Materials required:

Supplied:

FDC-L91-4111, Future Designs limit controller, which includes relay output 2  
700-FSM4UU23, Allen Bradley multifunction Timer Relay

By others:

120Vac signaling device (Horn or Light or both)

Red and White 18 Awg wire and wire numbers 20 and 21, Din rail

- Turn off power to control panel
- Remove old high limit controller from case by pushing the tab on lower front of cover and pulling it out. Insert the new L91-4111 into the old housing.
- Install small piece of DIN rail 1-1/2 inches long to base plate in any open space
- Clip AB Timer Relay to Din Rail
- Install jumper from any terminal with wire # 10 to pin #1 on back of L91 case
- Install Wire #20 from Pin #2 on L91 to Pins A1 and 15 on the timer relay
- Install Wire #21 from Pin 18 on timer to the 120Vac input of the signaling device
- Install white neutral jumper from any existing white wire to pin A2 on timer

Circuit is now ready to test

Timer function selection screw should be set for “A” operation

Select the appropriate time range and time delay value about 30 minutes

Turn on the power and program the L91

Follow the instruction manual:

- Change Out 2 function to #3 (Alarm Output) ---- page 19
- Change alarm function parameter to #7 (process value low alarm) – page 20

Set HSP1 the high temperature alarm setpoint

Set SP2 the low temperature alarm setpoint

Oven is now ready for operation.

If the oven temperature stays below the low temperature setpoint (SP2) for longer than the preset delay time (30 min) the alarm horn will sound until the temperature exceeds SP2.

To silence the alarm, cycle the power on off switch and the 30 minute timer will be reset.

