![Lennox logo]

SERVICE AND APPLICATION NOTES

ComfortSense® 3000 (51M37) used with Lennox Two-Stage Furnaces

AFFECTED MODELS:

ComfortSense® 3000 (51M37), EL296DFE, EL296UHE, SL280 and EL280

ISSUE:

This addresses the use of the the 51M37 thermostat for two-stages of gas heating operation. The 51M37 is a 3 heat/ 2 cool thermostat. It has two stages of heat pump heating, one stage of gas heating and two stages of cooling. Since this thermostat does not directly support two-stages of gas heating via a W2 terminal. The following setting changes are required to allow support for two-stages of gas heating.

Thermostat Terminal Designations

CORRECTIVE ACTION:

The two-stage integrated furnace control in the reference furnaces can be utilized with either a TWO STAGE or TIMED STAGING (SINGLE GAS HEATING STAGE) thermostats. When the 51M37 thermostat is used with any of the reference two-stage gas furnaces, the furnace control DIP switch settings MUST be configured as follows.

☐ **THERMOSTAT SELECTION**: For two-stages of gas heat, set DIP switch #1 on the integrated furnace control to the **ON** position (TIMED STAGING) (see figure 1). This will allow for second-stage operation by using the delay timer built into the integrated furnace control. While in TIME STAGING thermostat mode, the burners will always fire on first-stage heat. The combustion air inducer will operate on low speed and indoor blower will operate on low heat speed and then afterward a specific delay as reference below will occur before entering second-stage gas heating.

☐ **2ND STAGE HEAT ON DELAY**: DIP switch #2 on the integrated furnace control will allow for either a 7- (default) or 12-minute delay on SL280 / EL296 and 10- (default) or 15-minute delay on EL280 before activating second-stage heating.

NOTE: On older furnace controls there may be labels located next to each DIP switch marked as indicated below:
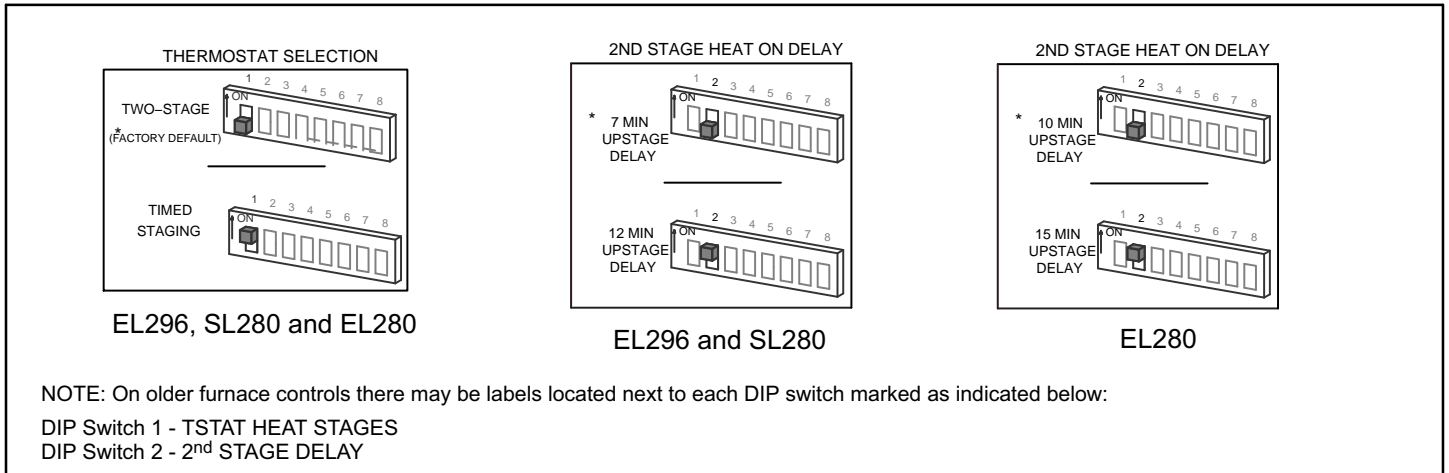
DIP Switch 1 - TSTAT HEAT STAGES
DIP Switch 2 - 2nd STAGE DELAY

FIGURE 1. DIP SWITCHES ON FURANCE CONTROLS