

INSTALLATION INSTRUCTIONS

Replacing a single stage *G6/L1 control board with a *G7 control board

IMPORTANT SAFETY INFORMATION

Safety markings are used to designate a degree or level of seriousness and should not be ignored. **WARNING** indicates a potentially hazardous situation that if not avoided, could result in personal injury or death. **CAUTION** indicates a potentially hazardous situation that if not avoided, may result in minor or moderate injury or property damage.

WARNING:

RISK OF ELECTRICAL SHOCK
Shut off all electrical power to the unit before performing any maintenance or service on the system. Failure to follow this warning can cause serious injury, fire, electrical shock, or death.

CAUTION:

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

These instructions describe how to properly replace a single stage *G6/L1 control board (PN 624631) with a *G7 control board (PN 624690).

INSTALLATION PROCEDURE

When replacing the *G6/L1 control board (PN 624631) with a *G7 control board (PN 624690), install all wires from the door switch and 24V transformer on the same pin locations they were removed from. This means the wire that was attached to the L1 terminal on the G6 control board (624631) will need to be attached to the L1 terminal on the G7 board (624690), the wire

on the XFMR terminal of the *G6/L1 board (Figure 1) should be placed on the XFMR terminal of the *G7 board (Figure 2), etc.

When connecting the wires from the thermostat, heat pump, AC unit, or air handler to the RCYGW terminals of the *G7 board, install all wires on the same terminals they were removed from.

When connecting the wires from the blower motor, please note which wire connects to the HEAT and COOL terminals on the *G7 control board. See Table 1. **NOTE:** If the motor does not have an orange wire, do not place any wire on the Medium Low terminal, this should be left empty.

The 6 pin (P1) and the 9 pin (P2) wire plugs will connect directly to the 624690 control board, there is no need to change any wire position.

Place label with flash codes near the wiring diagram on the furnace door for future reference.

COMPONENT	*G6/L1 TERMINAL BOARD (624631)	WIRE COLOR	*G7 TERMINAL BOARD (624690)
AIR CLEANER	EAC	Black	EAC
	Neutral	White	Neutral
BLOWER MOTOR	COOL M1/M2 HEAT	Black	HIGH
		Blue	MH
		Orange	ML
		Red	LOW
DOOR SWITCH	L1	Black	L1
	Neutral	White	Neutral
HUMIDIFIER	HUM	Black	HUM
	Neutral	White	Neutral
24V TRANSFORMER	XFMR	Black	XFMR
	Neutral	White	Neutral
	24V	Black with white stripe	24V
	COM	White with black stripe	COM
6 PIN CONNECTOR	P1	Multi	P1
9 PIN CONNECTOR	P2	Multi	P2

Table 1. Control Board Wire Chart

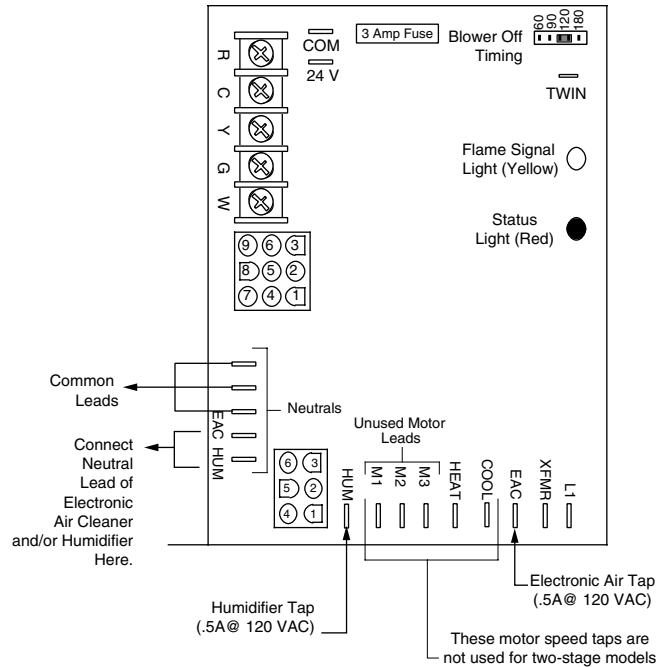


Figure 1. *G6/L1 Single Stage Control Board

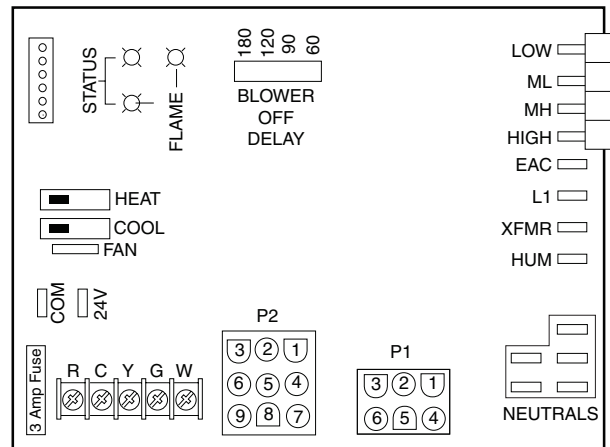
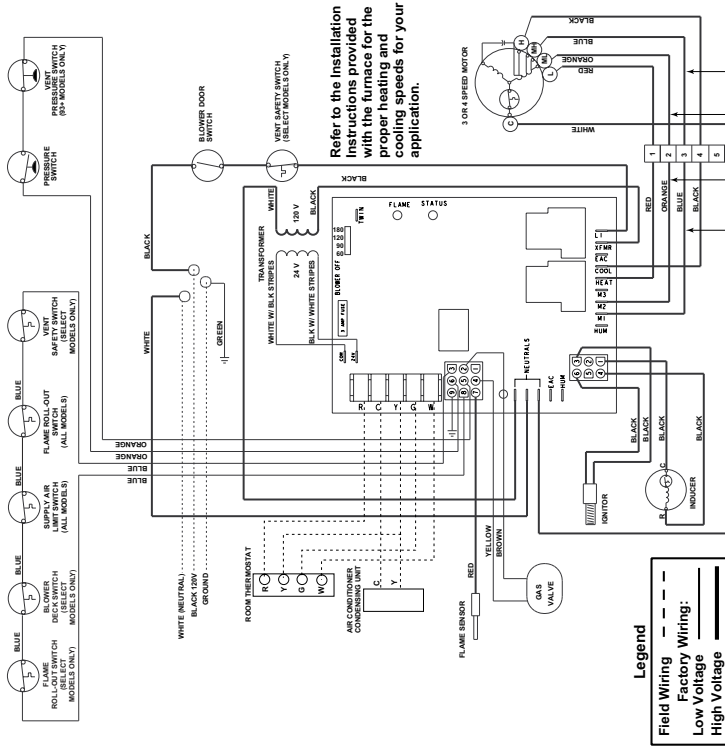


Figure 2. *G7 Single Stage Control Board

WIRING DIAGRAM

For 80+ and 90+ Model Furnaces



These wires are not present on all models

FAULT CONDITION	STATUS RED LIGHT
Power On	ON
Limit Circuit Open or External Load On - "w"	1 FLASH
Pressure Switch is Open with Inducer On	2 FLASHES
Pressure Switch is Closed with Inducer Off	3 FLASHES
Ignition Failure (Check Ground)	4 FLASHES
115 VAC & Neutral Reversed or no Ground	5 FLASHES
False Flame or Gas Valve Relay Shorted	Continuous
Power Off	OFF

FAULT CONDITION	FLAME YELLOW LIGHT
Low Flame Sensor Signal	Continuous Flash
Flame Present	ON

7103550 (Replaces 7103250)



Figure 3. *G6/L1 Wiring Diagram

WIRING DIAGRAM

For 80+ and 90+ Single Stage Furnaces

Refer to the Installation Instructions provided with the furnace for the proper heating and cooling speeds for your application.

FAULT CONDITIONS		
Diagnostic Description	Green LED	Red LED
Control Fault (No Power)	Off	Off
L1 / Neutral Polarity Fault	Flash	Flash
1 Hour Lockout	Alternating Flash	
Normal Operation	On	On
Pressure Switch Closed Fault	On	Flash
Pressure Switch Open Fault	Flash	On
Open Limit Switch Fault	Flash	Off
Diagnostic Description	Yellow LED	
Low Flame Sensor Signal	Continuous Flash	
Flame Present	On	

If any of the original wire as supplied with the furnace must be replaced, it must be replaced with wiring material having a temperature rating of at least 105° C.

Use copper conductors only.



LEGEND:

FIELD WIRING	---
LOW VOLTAGE	---
HIGH VOLTAGE	---

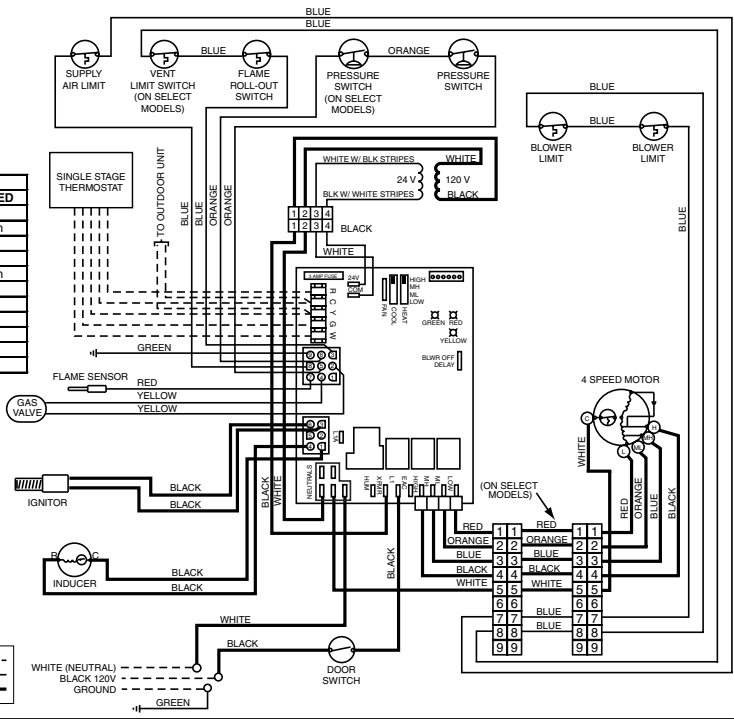


Figure 4. *G7 Wiring Diagram