



SERVICE AND APPLICATION NOTES

100046

April 20, 2022

LRP16HP Residential Package Units – 9-Pin Relay Mis-Wiring Issue

APPLICABLE UNITS:

All LRP16HP residential package units.

SUBJECT:

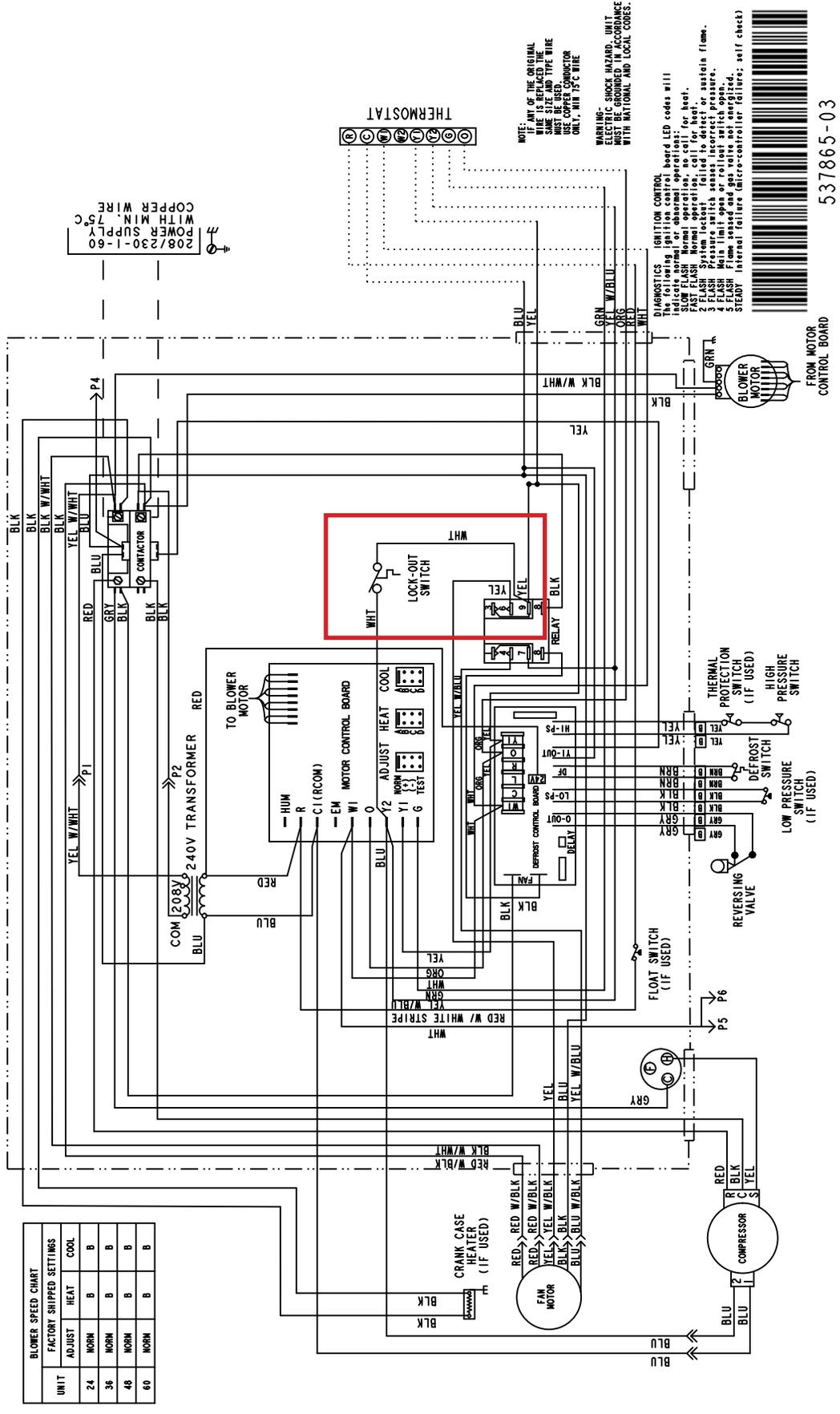
There have been some field reports of the clear 9-pin defrost relay being mis-wired from the factory, with the yellow wires reversed on pins # 6 and # 9 in relation to the white two-stage wire attached to pin # 9.

This will cause the outdoor condenser fan to stay on during defrost, and does not allow the second stage to lock in.

The Y2 lock-in switch, previously mis-labeled "LOCK-OUT SWITCH", is designed to lock in Y2 stage compressor operation during the heating mode when the outdoor coil temp is at or below 30°F and opens at around 40°F ± 5°F.

To correct the issue, the factory will move the white lock-in switch wire from pin 9 on the defrost relay to the 24V 'hot' side of the compressor contactor. This will be the same connection point on the contactor as the yellow "Y1-OUT" wire that originates from the defrost control.

For units already installed, the field can cut off the 3/16" spade terminal from the white wire and install a 1/4" spade terminal and install it on the compressor contactor 24V 'hot' terminal with yellow wire Y1 out that comes from the defrost board.



BLOWER SPEED CHART

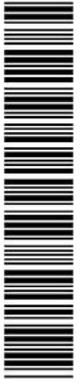
UNIT	FACTORY SHIPPED SETTINGS		
	ADJUST	HEAT	COOL
24	NORM	B	B
36	NORM	B	B
48	NORM	B	B
60	NORM	B	B

208/230-1-60
POWER SUPPLY
WITH MIN. 75°C
COPPER WIRE

NOTE: ANY OF THE ORIGINAL WIRE IS REPLACED THE SAME SIZE AND TYPE WIRE MUST BE USED. USE COPPER CONDUCTOR ONLY, MIN 15°C WIRE

WARNING: SHOCK HAZARD. UNIT MUST BE GROUND IN ACCORDANCE WITH NATIONAL AND LOCAL CODES.

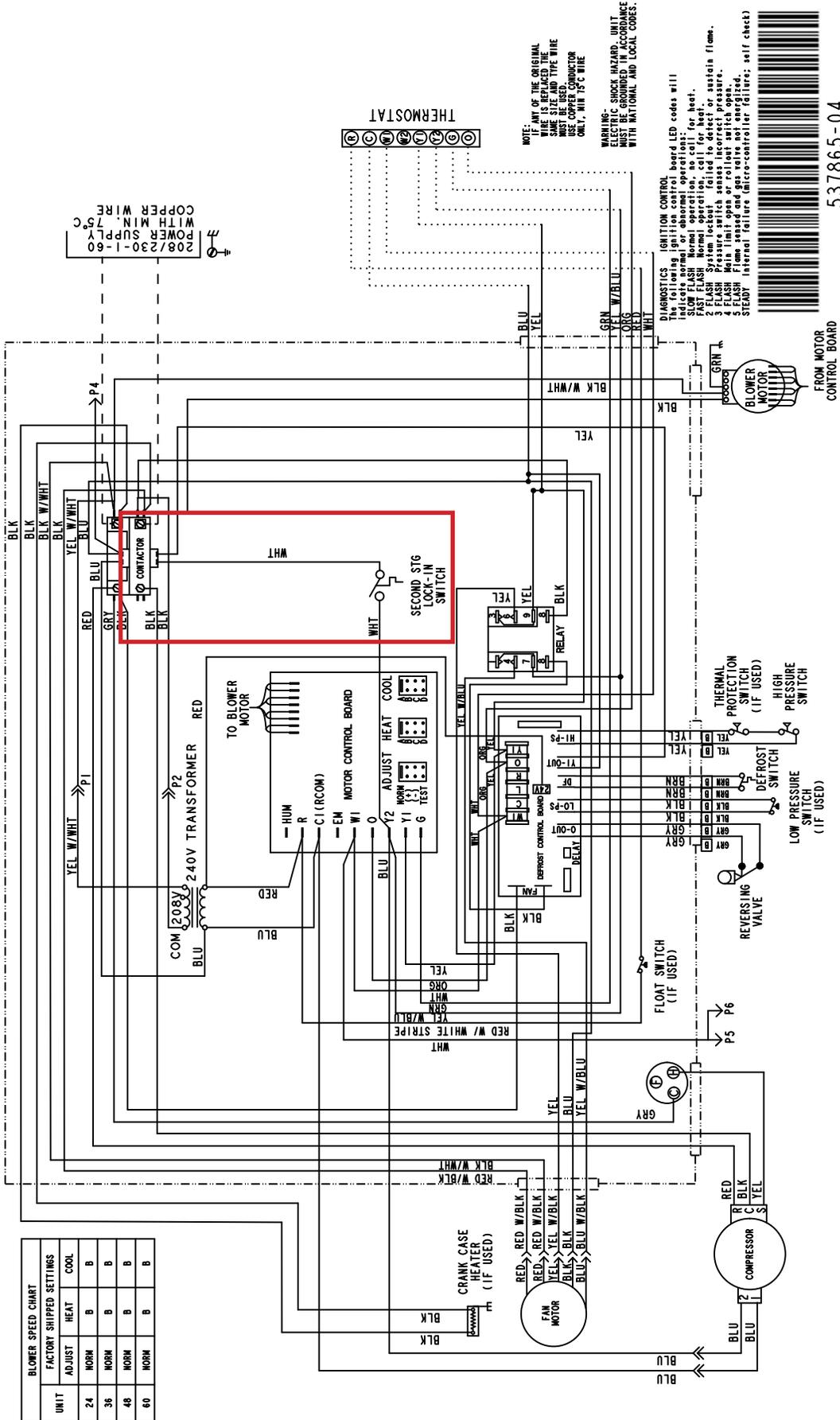
DIAGNOSTICS (IGNITION CONTROL
The following ignition control board LED codes will indicate normal or abnormal operation:
1. FAST FLASH Normal operation, coil for heat.
2. FLASH System lockout. Failed to detect or sustain flame.
3. FLASH Malfunction. Failed to detect or sustain flame.
4. FLASH Flame sensor. Failed to detect or sustain flame.
5. FLASH Flame sensed and gas valve not energized.
STEADY Internal failure (micro-controller failure: self check)



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FROM MOTOR CONTROL BOARD

Field / Factory Correction Wiring



BLOWER SPEED CHART			
UNIT	FACTORY SHIPPED SETTINGS		
	ADJUST	HEAT	COOL
24	NORM	B	B
36	NORM	B	B
48	NORM	B	B
60	NORM	B	B

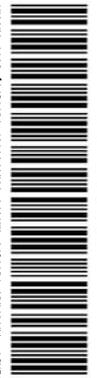
208/230-1-60
POWER SUPPLY
WITH MIN. 75°C
COPPER WIRE



NOTE: WIRE OF THE ORIGINAL
WIRING IS REPLACED BY
SAME SIZE AND TYPE WIRE
MUST BE USED.
WIRING INSTRUCTIONS
ONLY, MIN. 75°C WIRE

WARNING-
ELECTRIC SHOCK HAZARD. UNIT
MUST BE DE-ENERGIZED
WITH NATIONAL AND LOCAL CODES.

DIAGNOSTICS IGNITION CONTROL
has been added to the control board.
Indicates normal or abnormal operation:
1 SLOW FLASH Normal operation, no call for heat.
2 FLASH System operation, call for heat.
3 FLASH System pressure switch senses incorrect pressure.
4 FLASH Main limit open or rollout switch open.
5 FLASH Internal failure (micro-controller failure; self check)
STEADY Internal failure (micro-controller failure; self check)



FROM MOTOR
CONTROL BOARD