



⚠️ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional HVAC installer or equivalent, or service agency.

⚠️ IMPORTANT

The Clean Air Act of 1990 bans the intentional venting of refrigerant (CFCs, HCFCs and HFCs) as of July 1, 1992. Approved methods of recovery, recycling or reclaiming must be followed. Fines and/or incarceration may be levied for noncompliance.

⚠️ CAUTION

As with any mechanical equipment, contact with sharp sheet metal edges can result in personal injury. Take care while handling this equipment and wear gloves and protective clothing.

⚠️ WARNING

To prevent serious injury or death:

1. Lock-out/tag-out before performing maintenance.
2. If system power is required (e.g., smoke detector maintenance), disable power to blower, remove fan belt where applicable, and ensure all controllers and thermostats are set to the "OFF" position before performing maintenance.
3. Always keep hands, hair, clothing, jewelry, tools, etc. away from moving parts.

General

This instruction is a complementary procedure. Installation should refer to the main unit instructions for the application considerations and proper installation procedures.

This ELKC and ELKP outdoor air conditioners are designed for use with R-454B refrigerant only. This unit must be installed with an approved indoor air handler or coil and line set as outlined in the ELKC or ELKP Engineering Handbook.

This outdoor unit is designed for use in thermal expansion valve (TXV) systems only.

Extended Charge Procedure Commercial Application

Elite® Series 6 – 20 Ton

AIR CONDITIONERS

6 - 20 TONS

508349-02

3/2025

Table of Contents

Commercial Cooling Model(s) – Normal Operating Pressures and Temperatures	3
EL072KCSS - EL090KASD	3
EL090KCSS - EL120KASD	4
(2) EL090KCSS - EL180KASD	4
(2) EL120KCSS - EL240KASD	5
EL150KCSD - EL180KASD	5
EL180KCSD - EL240KASD	6
EL180KCSD - (2) EL090KASD	6
EL240KCSD - (2) EL120KASD	7
Residential Cooling Model(s) –	
Normal Operating Pressures and Temperatures	8
EL090KCSS + (2) CK40CT-60D-71 +	
(2) EL296UH135XE60D	8
EL090KCSS + (2) CK40CT-60C-71 +	
(2) EL280UH110E48C	9
EL090KCSS + (2) CK40CT-60C-71 +	
(2) EL296UH110XE60C	10
EL090KCSS + (2) CK40CT-60C-71 +	
(2) EL280UH110E60C	11
EL090KCSS + (2) CK40CT-60C-71 +	
(2) EL280UH110XE60C	11
EL120KCSS + (2) CK40CT-60C-71 +	
(2) EL280UH110E60C	12
EL120KCSS + (2) CK40CT-60C-71 +	
(2) EL280UH110XE60C	12
EL120KCSS + (2) CK40CT-60C-71 +	
(2) EL296UH110XE60CEL120KCSS +	
(2) CK40CT-60D-71 + (2) EL296UH135XE60D	13
Commercial Heat Pump Model(s) –	
Normal Operating Pressures and Temperatures	15
(2) EL090KPSS + EL240KASD	15
Interconnected Wiring Diagrams and Thermostat Operations	16

NOTE – The ELKC/ELKP is a PARTIAL UNIT AIR CONDITIONER, complying with PARTIAL UNIT requirements in this standard, and must only be connected to other units that have been confirmed as complying to corresponding PARTIAL UNIT requirements of this Standard, UL 60335-2-40/CSA C22.2 No. 60335-2-40, or UL 1995/CSA C22.2 No 236.

Refrigerant Charge

NOTE - This extended R-454B charging procedure applies to non-matched Indoor and Outdoor units only. For matched Indoor and Outdoor units with same full load capacity, see unit instructions for charging procedure.

The ELITE units have a factory holding charge of 2 pounds of R-454B in each circuit. The outdoor unit should be charged during warm weather. However, applications arise in which charging must occur in the colder months. The method of charging is determined by the outdoor ambient temperature. Before charging the unit, determine the liquid line temperature and the outdoor ambient temperature.

Charge Using the Subcooling Method –

Outdoor Temperature > 65°F (18.3°C)

- 1 - Attach pressure gauge set to liquid and suction service valves. Operate unit for at least five (5) minutes to allow system pressures to stabilize, then, use a thermometer to record the liquid line temperature.
- 2 - At the same time, record the liquid line pressure reading. Use a temperature/pressure chart for R-454B to determine the saturation temperature for the liquid line pressure reading.
- 3 - Subtract the liquid line temperature from the saturation temperature (according to the chart) to determine subcooling (Saturation temperature - Liquid line temperature = Subcooling Value).
- 4 - Compare the subcooling value with those in table for the specific system match. If subcooling is greater than shown, recover some refrigerant. If subcooling is less than shown, add refrigerant.
- 5 - Repeat steps 1 – 5 anytime refrigerant is added or recovered.
- 6 - For Heat Pump models – Switch to heating mode and let the system stabilize at least 10 minutes. Then confirm that the pressures obtained from the connected gauges match the normal operating pressures (heating mode) in table for the specific system match.

Charge Using Normal Operating Pressures/Approach Method (High Capacity)

Outdoor Temperature ≥ 65°F (18.3°C)

For best results, indoor temperature should be 70°F (21°C) to 80°F (26°C). Monitor system pressures while charging.

- 1 - Attach pressure gauge set to liquid and suction service valves.
- 2 - Operate unit for at least five (5) minutes to allow system pressures to stabilize. Record pressures.

- 3 - Compare stabilized pressures with those provided in table for the specific system match. Minor variations are to be expected; significant differences could mean that the system is not properly charged or that a problem exists with some component in the system. The approach method is not valid for grossly over or under-charged systems.
- 4 - Pressures higher than those listed indicate that the system is overcharged. Pressures lower than those listed indicate that the system is undercharged. Add or recover charge until the pressures are within the tolerances on the table.
- 5 - Repeat steps 2 – 4 each time refrigerant is added or recovered.
- 6 - Verify charge using the approach method.
- 7 - Use the same thermometer to measure and record liquid line temperature.
- 8 - Subtract the outdoor temperature from the liquid line temperature to determine the approach value (Liquid line temperature – Ambient temperature = Approach Temperature).
- 9 - The approach temperature should match value given in table for the specific system match. If the values don't agree with the those in table, add refrigerant to lower the approach temperature or recover refrigerant from the system to increase the approach temperature.
- 10 - Operate unit for at least five (5) minutes to allow system pressures to stabilize.
- 11 - Repeat steps 7 – 10 each time refrigerant is added or recovered.
- 12 - For Heat Pump models – Switch to heating mode and let the system stabilize at least 10 minutes. Then confirm that the pressures obtained from the connected gauges match the normal operating pressures (heating mode) in table for the specific system match.

Outdoor Temperature < 65°F (18.3°C)

When the outdoor ambient temperature is below 65°F (18.3°C) it may be necessary to restrict the air flow through the outdoor coil to achieve pressures in the 325-375 psig (2240-2485 kPa) range. These higher pressures are necessary for checking the charge. Block equal sections of air intake panels and move obstructions sideways until the liquid pressure is in the 325-375 psig (2240-2485 kPa) range. See FIGURE 1. Once pressure is in range, charge using Normal Operating Pressures/Approach Method (High Capacity).

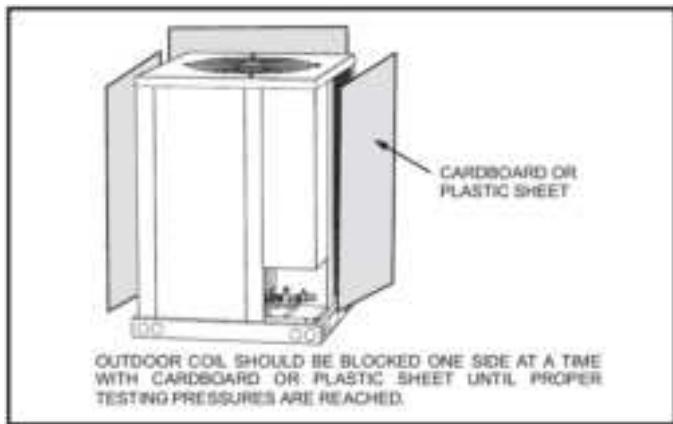


FIGURE 1. Blocking Outdoor Coil

Using the Normal Operating Pressures and Temperatures Table

Tables may be used to help perform maintenance checks. This table is not a procedure for charging the system and any minor variations in the pressures may be expected due to differences in installations. However, significant deviations could mean that the system is not properly charged or that a problem exists with some component in the system.

Commercial Cooling Model(s) – Normal Operating Pressures and Temperatures

Note - Pressures at 80°F dry bulb and 67°F wet bulb entering indoor air temperatures.

EL072KCSS - EL090KASD

EL072KCSS - EL090KASD

Subcooling Values (High Capacity) - at 95°F Ambient Temperature

Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F

Temp. °F (°C)	12 (6.7)
---------------	----------

Approach Values (High Capacity) - at 95°F Ambient Temperature

Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)

Temp. °F (°C)	6 (3.3)
---------------	---------

Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)

Liquid Line Pressure / Vapor Line Pressure	
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>
65 (18)	235/134
75 (24)	274/135
85 (29)	317/137
95 (35)	363/139
105 (41)	413/141
115 (46)	467/143
125 (52)	525/145
SCFM	2750

EL090KCSS - EL120KASD

EL090KCSS - EL120KASD	
Subcooling Values (High Capacity) - at 95°F Ambient Temperature	
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F</i>	
Temp. °F (°C)	12 (6.7)
Approach Values (High Capacity) - at 95°F Ambient Temperature	
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)</i>	
Temp. °F (°C)	6 (3.3)
Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)	
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>
Liquid Line Pressure / Vapor Line Pressure	
65 (18)	236/124
75 (24)	273/126
85 (29)	313/128
95 (35)	358/130
105 (41)	406/133
115 (46)	458/135
125 (52)	514/137
SCFM	2750

(2) EL090KCSS - EL180KASD

(2) EL090KCSS - EL180KASD		
	CIR. 1	CIR. 2
Subcooling Values (High Capacity) - at 95°F Ambient Temperature		
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F</i>		
Temp. °F (°C)	12 (6.7)	12 (6.7)
Approach Values (High Capacity) - at 95°F Ambient Temperature		
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)</i>		
Temp. °F (°C)	4 (2.2)	4 (2.2)
Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)		
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>	
Liquid Line Pressure / Vapor Line Pressure		
65 (18)	232/115	231/113
75 (24)	269/117	268/114
85 (29)	309/119	309/117
95 (35)	354/121	353/119
105 (41)	401/123	401/122
115 (46)	454/127	452/124
125 (52)	510/129	509/128
SCFM		5200

(2) EL120KCSS - EL240KASD

(2) EL120KCSS - EL240KASD		
	CIR. 1	CIR. 2
Subcooling Values (High Capacity) - at 95°F Ambient Temperature		
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F</i>		
Temp. °F (°C)	8 (4.4)	8 (4.4)
Approach Values (High Capacity) - at 95°F Ambient Temperature		
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)</i>		
Temp. °F (°C)	6 (3.3)	6 (3.3)
Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)		
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>	
	Liquid Line Pressure / Vapor Line Pressure	
65 (18)	224/122	224/122
75 (24)	260/123	260/123
85 (29)	300/125	300/125
95 (35)	344/128	344/128
105 (41)	391/129	391/129
115 (46)	443/131	443/131
125 (52)	499/134	499/134
SCFM	7400	

EL150KCSD - EL180KASD

EL150KCSD - EL180KASD		
	CIR. 1	CIR. 2
Subcooling Values (High Capacity) - at 95°F Ambient Temperature		
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F</i>		
Temp. °F (°C)	12 (6.7)	12 (6.7)
Approach Values (High Capacity) - at 95°F Ambient Temperature		
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)</i>		
Temp. °F (°C)	5 (2.8)	5 (2.8)
Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)		
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>	
	Liquid Line Pressure / Vapor Line Pressure	
65 (18)	239/127	237/124
75 (24)	276/130	274/125
85 (29)	317/132	315/127
95 (35)	361/133	359/130
105 (41)	409/135	407/132
115 (46)	462/138	459/134
125 (52)	519/141	516/137
SCFM	5200	

EL180KCSD - EL240KASD

EL180KCSD - EL240KASD		
	CIR. 1	CIR. 2
Subcooling Values (High Capacity) - at 95°F Ambient Temperature		
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F</i>		
Temp. °F (°C)	9 (5.0)	10 (5.6)
Approach Values (High Capacity) - at 95°F Ambient Temperature		
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)</i>		
Temp. °F (°C)	4 (2.2)	4 (2.2)
Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)		
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>	
	Liquid Line Pressure / Vapor Line Pressure	
65 (18)	217/130	219/131
75 (24)	255/133	256/133
85 (29)	296/135	296/136
95 (35)	340/137	341/138
105 (41)	390/140	391/140
115 (46)	443/142	445/142
125 (52)	500/145	501/145
SCFM	7025	

EL180KCSD - (2) EL090KASD

EL180KCSD - (2) EL090KASD		
	CIR. 1	CIR. 2
Subcooling Values (High Capacity) - at 95°F Ambient Temperature		
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F</i>		
Temp. °F (°C)	9 (5.0)	10 (5.6)
Approach Values (High Capacity) - at 95°F Ambient Temperature		
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)</i>		
Temp. °F (°C)	4 (2.2)	3 (1.7)
Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)		
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>	
	Liquid Line Pressure / Vapor Line Pressure	
65 (18)	215/120	217/120
75 (24)	252/122	253/123
85 (29)	293/125	294/125
95 (35)	337/128	339/129
105 (41)	385/130	388/131
115 (46)	438/133	441/133
125 (52)	497/137	498/137
SCFM	5200(2600 per unit)	

EL240KCSD - (2) EL120KASD

EL240KCSD - (2) EL120KASD		
	CIR. 1	CIR. 2
Subcooling Values (High Capacity) - at 95°F Ambient Temperature		
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F</i>		
Temp. °F (°C)	11 (6.1)	12 (6.7)
Approach Values (High Capacity) - at 95°F Ambient Temperature		
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)</i>		
Temp. °F (°C)	4 (2.2)	3 (1.7)
Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)		
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>	
	Liquid Line Pressure / Vapor Line Pressure	
65 (18)	226/120	226/120
75 (24)	263/122	265/122
85 (29)	304/124	305/124
95 (35)	348/127	349/126
105 (41)	396/129	397/129
115 (46)	448/131	449/131
125 (52)	505/135	506/135
SCFM	7025(3513 per unit)	

Residential Cooling Model(s) – Normal Operating Pressures and Temperatures

Note - Pressures at 80°F dry bulb and 67°F wet bulb entering indoor air temperatures.

EL090KCSS + (2) CK40CT-60D-71 + (2) EL296UH135XE60D

EL090KCSS + (2) CK40CT-60D-71 + (2) EL296UH135XE60D	
Subcooling Values (High Capacity) - at 95°F Ambient Temperature	
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F</i>	
Temp. °F (°C)	12 (6.7)
Approach Values (High Capacity) - at 95°F Ambient Temperature	
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)</i>	
Temp. °F (°C)	6 (3.3)
Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)	
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>
Liquid Line Pressure / Vapor Line Pressure	
65 (18)	238/130
75 (24)	276/132
85 (29)	316/134
95 (35)	360/135
105 (41)	408/137
115 (46)	460/140
125 (52)	516/143
SCFM	3545(1771 per unit)

EL090KCSS + (2) CK40CT-60C-71 + (2) EL280UH110E48C

EL090KCSS + (2) CK40CT-60C-71 + (2) EL280UH110E48C	
Subcooling Values (High Capacity) - at 95°F Ambient Temperature	
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F</i>	
Temp. °F (°C)	12 (6.7)
Approach Values (High Capacity) - at 95°F Ambient Temperature	
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)</i>	
Temp. °F (°C)	6 (3.3)
Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)	
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>
Liquid Line Pressure / Vapor Line Pressure	
65 (18)	239/132
75 (24)	276/133
85 (29)	317/135
95 (35)	361/137
105 (41)	409/139
115 (46)	461/141
125 (52)	516/144
SCFM	3210(1604 per unit)

EL090KCSS + (2) CK40CT-60C-71 + (2) EL296UH110XE60C

EL090KCSS + (2) CK40CT-60C-71 + (2) EL296UH110XE60C	
Subcooling Values (High Capacity) - at 95°F Ambient Temperature	
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F</i>	
Temp. °F (°C)	12 (6.7)
Approach Values (High Capacity) - at 95°F Ambient Temperature	
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)</i>	
Temp. °F (°C)	6 (3.3)
Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)	
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>
Liquid Line Pressure / Vapor Line Pressure	
65 (18)	239/133
75 (24)	276/134
85 (29)	317/135
95 (35)	361/138
105 (41)	409/140
115 (46)	461/142
125 (52)	517/145
SCFM	3285(1641per unit)

EL090KCSS + (2) CK40CT-60C-71 + (2) EL280UH110E60C

EL090KCSS + (2) CK40CT-60C-71 + (2) EL280UH110XE60C

EL090KCSS + (2) CK40CT-60C-71 + (2) EL280UH110E60C	
Subcooling Values (High Capacity) - at 95°F Ambient Temperature	
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F</i>	
Temp. °F (°C)	12 (6.7)
Approach Values (High Capacity) - at 95°F Ambient Temperature	
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)</i>	
Temp. °F (°C)	6 (3.3)
Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)	
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>
	Liquid Line Pressure / Vapor Line Pressure
65 (18)	239/131
75 (24)	276/132
85 (29)	317/134
95 (35)	361/136
105 (41)	409/138
115 (46)	460/141
125 (52)	516/143
SCFM	3115(1556per unit)

EL120KCSS + (2) CK40CT-60C-71 + (2) EL280UH110E60C

EL120KCSS + (2) CK40CT-60C-71 + (2) EL280UH110XE60C

EL120KCSS + (2) CK40CT-60C-71 + (2) EL280UH110E60C	
EL120KCSS + (2) CK40CT-60C-71 + (2) EL280UH110XE60C	
Subcooling Values (High Capacity) - at 95°F Ambient Temperature	
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F</i>	
Temp. °F (°C)	9 (5.0)
Approach Values (High Capacity) - at 95°F Ambient Temperature	
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)</i>	
Temp. °F (°C)	6 (3.3)
Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)	
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>
Liquid Line Pressure / Vapor Line Pressure	
65 (18)	223/120
75 (24)	261/122
85 (29)	302/124
95 (35)	347/126
105 (41)	398/128
115 (46)	451/131
125 (52)	509/133
SCFM	3115 (1556 per unit)

EL120KCSS + (2) CK40CT-60C-71 + (2) EL296UH110XE60C

EL120KCSS + (2) CK40CT-60C-71 + (2) EL296UH110XE60C	
Subcooling Values (High Capacity) - at 95°F Ambient Temperature	
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F</i>	
Temp. °F (°C)	9 (5.0)
Approach Values (High Capacity) - at 95°F Ambient Temperature	
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)</i>	
Temp. °F (°C)	7 (3.9)
Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)	
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>
Liquid Line Pressure / Vapor Line Pressure	
65 (18)	223/122
75 (24)	261/124
85 (29)	302/125
95 (35)	347/127
105 (41)	398/130
115 (46)	451/132
125 (52)	510/135
SCFM	3285(1641 per unit)

EL120KCSS + (2) CK40CT-60D-71 + (2) EL296UH135XE60D

EL120KCSS + (2) CK40CT-60D-71 + (2) EL296UH135XE60D	
Subcooling Values (High Capacity) - at 95°F Ambient Temperature	
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F</i>	
Temp. °F (°C)	9 (5.0)
Approach Values (High Capacity) - at 95°F Ambient Temperature	
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C)</i>	
Temp. °F (°C)	6 (3.3)
Normal Operating Pressures (Liquid ±10 & Suction ±5 psig)	
Air Temperature Entering Outside Coil	<i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i>
Liquid Line Pressure / Vapor Line Pressure	
65 (18)	223/119
75 (24)	260/121
85 (29)	302/123
95 (35)	347/125
105 (41)	397/127
115 (46)	451/131
125 (52)	509/133
SCFM	3545(1771 per unit)

Commercial Heat Pump Model(s) – Normal Operating Pressures and Temperatures

(2) EL090KPSS + EL240KASD

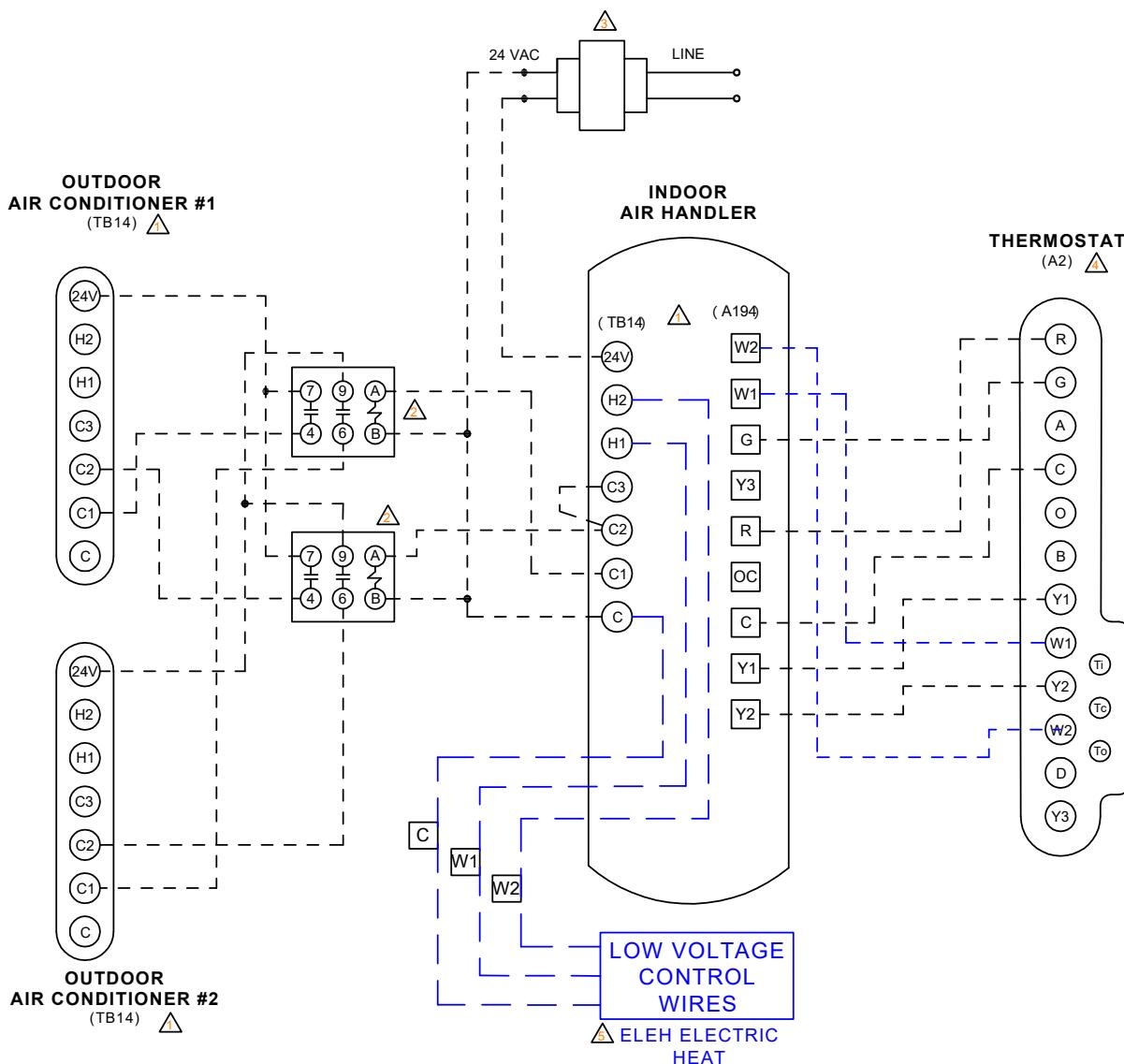
(2) EL090KPSS - EL240KASD		
	CIR. 1	CIR. 2
Subcooling Values - Cooling (High Capacity) - at 95°F Ambient Temperature		
<i>Saturation Temperature minus Liquid Line Temperature °F (°C) ±1°F (0.5°C)</i>		
Temp. °F (°C)	6 (3.3)	6 (3.3)
Approach Values - (High Capacity) - at 95°F Ambient Temperature		
<i>Liquid Line Temperature minus Outdoor Ambient Temperature °F (°C) ± 1°F (0.5°C)</i>		
Temp. °F (°C)	8 (4.4)	8 (4.4)
Normal Operating Pressures - Cooling (Liquid ±10 & Suction ±5 psig)		
Air Temperature Entering Outside Coil	<p><i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i></p> <p><i>(Pressures at 80°F dry bulb and 67°F wet bulb entering indoor air temperatures)</i></p> <p style="text-align: center;">Liquid Line Pressure / Vapor Line Pressure</p>	
65 (18)	224/126	224/126
75 (24)	260/129	260/129
85 (29)	300/130	300/130
95 (35)	344/133	344/133
105 (41)	391/135	391/135
115 (46)	442/138	442/138
125 (52)	497/141	497/141
Normal Operating Pressures - Heating (Liquid ±10 & Suction ±5 psig)		
Air Temperature Entering Outside Coil	<p><i>The values below are typical pressures; indoor air quantity, and evaporator load will cause the pressures to vary.</i></p> <p><i>(Pressures at 70°F dry bulb entering indoor air temperatures)</i></p> <p style="text-align: center;">Liquid Line Pressure / Vapor Line Pressure</p>	
60 (15)	340/111	340/111
50 (10)	321/94	321/94
40 (4)	304/79	304/79
30 (-1)	288/65	288/65
20 (-6)	276/53	276/53
10 (-12)	264/43	264/43
SCFM	6000	

Interconnected Wiring Diagrams and Thermostat Operations

The purpose of the interconnect diagrams is to enable AHRI testing agencies to wire up 2-1 and 1-2 Commercial Elite Splits matchups for performance (ratings) testing. All multiple unit interconnection diagrams require field provided thermostat, relay(s), transformer(s). For non-AHRI testing applications, engineering strongly suggests consulting with Lennox technical support before attempting to apply these diagrams in the field.

Unit operation tables based upon thermostat demands have been provided for each of the interconnect diagrams as a means of verifying proper wiring.

For FIGURE 4 wiring, if either indoor Air Handler detects a refrigerant leak and initiates the mitigation process, the non-leaking unit's blower will activate at the "G" demand speed until the leak is no longer detected. For FIGURE 5 wiring (using integrated furnace controller), if either Furnace detects refrigerant leak and initiates the leak mitigation process, the non-leaking furnace will activate its blower in high speed until the leak is no longer detected.



1 A194 & TB14 - TERMINAL STRIP-CLASS II VOLTAGE (FACTORY INSTALLED)

2 67K65 - RELAY, DPDT, 24V COIL (FIELD PROVIDED)

3 24 VAC / 70 VA (MIN) TRANSFORMER (FIELD PROVIDED)

4 A2 - THERMOSTAT (FIELD PROVIDED)

5 OPTIONAL FIELD INSTALLED ACCESSORY (NOT USED FOR AHR)

— — — — CLASS II FIELD WIRING

— — — — OPTIONAL CLASS II FIELD WIRING

WIRING DIAGRAM		05/25
SPLIT SYSTEMS - 2 ELKC + 1 ELKA		
LABEL-WIRING INTERCONNECT FIELD CONNECTION AC (2 COOL W/ OPT. ELEC. HEAT)		
SECTION C		REV. 0
Supersedes 538323-01	New Form No. 538323-02	

FIGURE 2. Two Air Conditioners (Outdoor) and One Indoor Air Handler (Indoor)

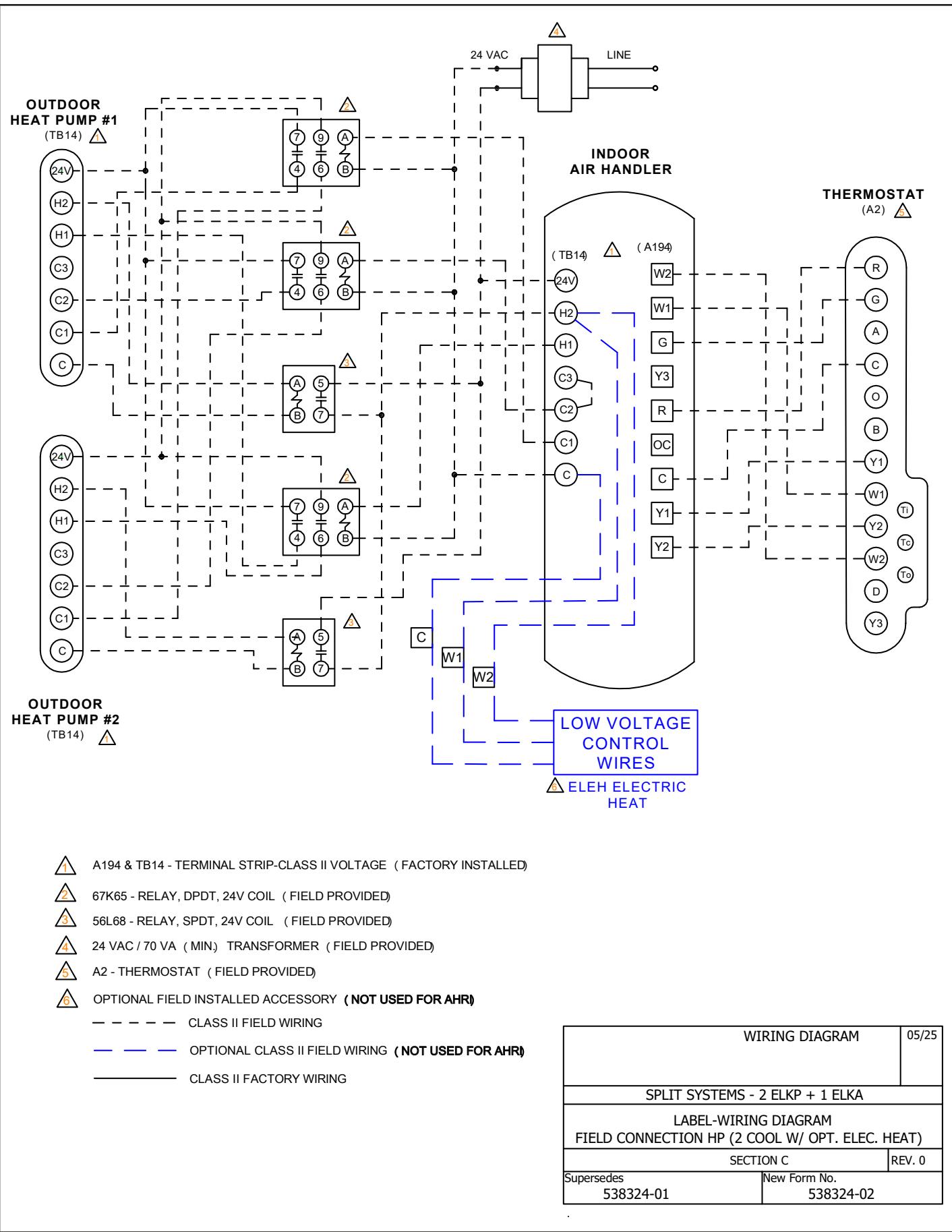
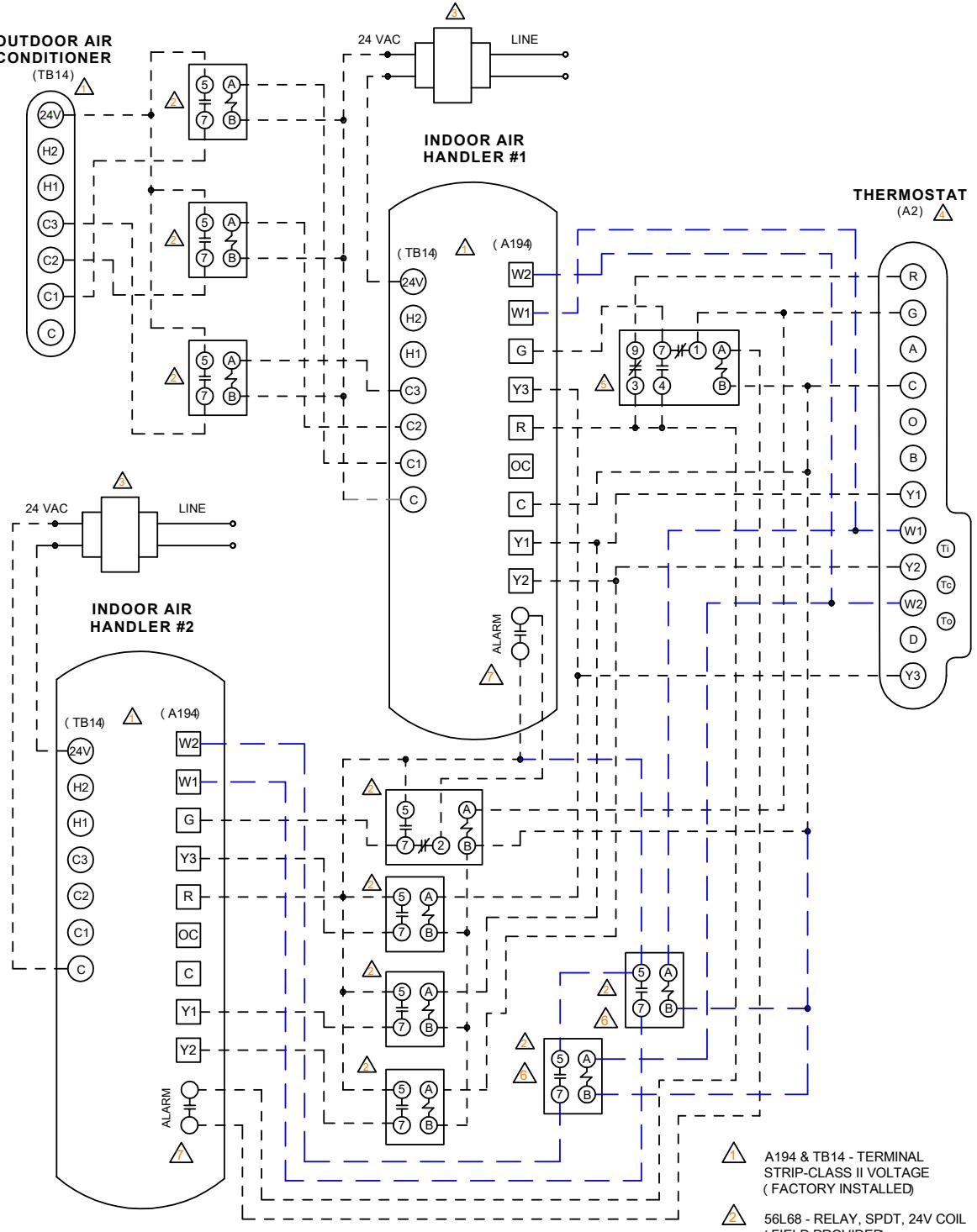


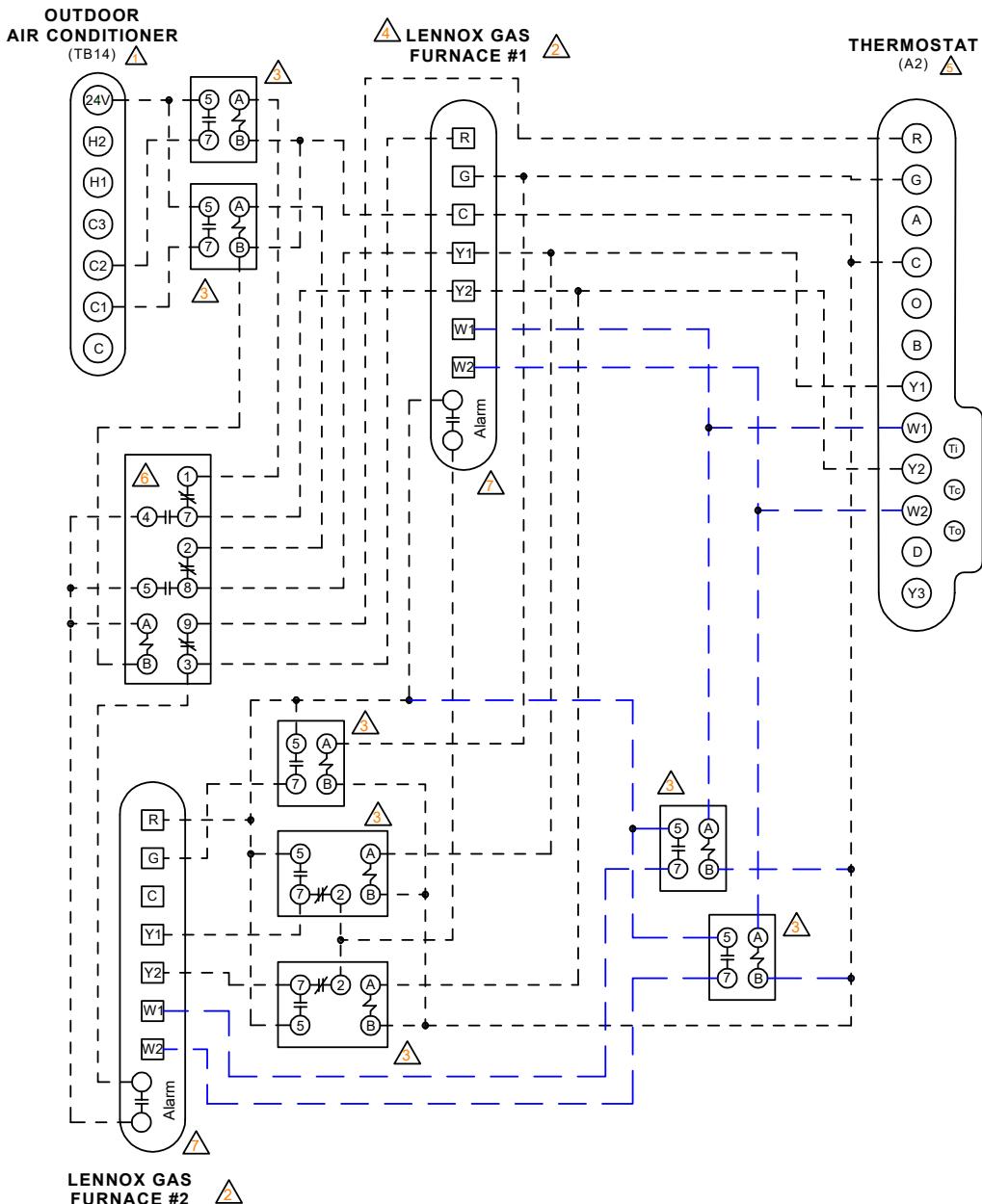
FIGURE 3. Two Heat Pumps (Outdoor) and One Air Handler (Indoor)



- ③ 24 VAC / 70 VA (MIN) TRANSFORMER (FIELD PROVIDED)
 - ④ A2 - THERMOSTAT (FIELD PROVIDED)
 - ⑤ 67K65 - RELAY, DPDT, 24V COIL (FIELD PROVIDED)
 - ⑥ OPTIONAL ELEH ELECTRIC HEAT ISOLATION RELAYS SHOWN FOR REFERENCE (NOT USED FOR AHR)
 - ⑦ A194 MITIGATION ACTIVATION ON EITHER AHU PLACES THE OTHER AHU INTO BLOWER ONLY OPERATION.
- CLASS II FIELD WIRING
- OPTIONAL CLASS II FIELD WIRING (NOT USED FOR AHR)
- CLASS II FACTORY WIRING

WIRING DIAGRAM		05/25
SPLIT SYSTEMS - 1 ELKC + 2 ELKA		
LABEL-WIRING DIAGRAM FIELD CONNECTION (3 COOL W/O ELEC. HTR.)		
SECTION C		REV. 0
Supersedes 538325-01	New Form No. 538325-02	

FIGURE 4. One Air Conditioner (Outdoor) and Two Air Handlers (Indoor)



- 1 TB14 - TERMINAL STRIP-CLASS II VOLTAGE (FACTORY INSTALLED)
 - 2 SEE ELITE SPLITS ENGINEERING HANDBOOK FOR APPLICABLE GAS FURNACE MODELS
 - 3 56L68 - RELAY, SPDT, 24V COIL (FIELD PROVIDED)
 - 4 REPLACE FACTORY 24 VAC TRANSFORMER WITH FIELD PROVIDED 24 VAC / 70 VA MIN. TRANSFORMER
 - 5 A2 - THERMOSTAT (FIELD PROVIDED)
 - 6 67K66 - RELAY, 3PDT, 24V COIL FIELD PROVIDED
 - 7 WIRING FOR FURNACE CONTROL BOARD WITH R454B LEAK SYSTEM INTEGRATED. MITIGATION ACTIVATION ON EITHER FURNACE PLACES THE OTHER FURNACE INTO HIGH SPEED BLOWER OPERATION.
- CLASS II FIELD WIRING
- CLASS II FIELD WIRING (NOT USED BY AHR)

WIRING DIAGRAM		05/25
SPLIT SYSTEMS - RESI. FURNACE		
LABEL-WIRING DIAGRAM		
FIELD CONNECTION AC (2 COOL W/ RESI. FURNACE)		
SECTION C		REV. 0
Supersedes 538326-01	New Form No. 538326-02	

FIGURE 5. One Air Conditioner (Outdoor) and Two Residential Furnaces (Indoor)

TABLE 1
Cooling Operation - Two Air Conditioners and One Air Handler (wired per FIGURE 2)

Thermostat (Output Signal)	AHU Blower Speed	AC #1		AC #2		ELEH Heater (Option)
		Compressor Speed	Fan(s)	Compressor Speed	Fan(s)	
Y1	Low	Low	On	Low	On	Off
Y2	High	High	On	High	On	Off
G	Low or High	Off	Off	Off	Off	Off
W1*	High	Off	Off	Off	Off	On
W2*	High	Off	Off	Off	Off	On

*Consult instructions for specific ELEH model for staging details; ELEH not installed for AHRI testing.

TABLE 2
Cooling & Heating Operation - Two Heat Pumps and One Air Handler (wired per FIGURE 3)

Thermostat (Output Signal)	AHU Blower Speed	HP #1		HP #2		ELEH Heater (Option)
		Compressor Speed	Fan(s)	Compressor Speed	Fan(s)	
Y1	Low	Low	On	Low	On	Off
Y2	High	High	On	High	On	Off
G	Low or High	Off	Off	Off	Off	Off
W1	High	High	On	High	On	Off
W2+*	High	Off	Off	Off	Off	On

*Consult instructions for specific ELEH model for staging details; ELEH not installed for AHRI testing.

+H2 Signal from Heat Pump is "On" (24V power) during defrost mode.

TABLE 3
Cooling Operation - One Air Conditioners and Two Air Handler (wired per FIGURE 4)

Thermostat (Output Signal)	AHU #1 Blower Speed	AHU #2 Blower Speed	Air Conditioner			ELEH Heater (Option)
			Compressor #1 Speed	Compressor #2 Speed	4 Fan(s)	
Y1	Low	Low	Low	Off	2 On	Off
Y2	Medium	Medium	Low	Low	4 On	Off
Y3	High	High	High	High	4 On	Off
G	Low or High	Low or High	Off	Off	Off	Off
W1*	High	High	Off	Off	Off	On
W2*	High	High	Off	Off	Off	On

*Consult instructions for specific ELEH model for staging details; ELEH not installed for AHRI testing.

TABLE 4
Cooling Operation - One Air Conditioner and Two Residential Furnaces (wired per FIGURE 5)

Thermostat (Output Signal)	Furnace #1 Blower Speed	Furnace #2 Blower Speed	Air Conditioner		ELEH Heater (Option)
			Compressor Speed	Fan(s)	
Y1	Low	Low	Low	On	
Y2	High	High	High	On	
G*	On	On	Off	Off	
W1*	On	On	Off	Off	
W2*	On	On	Off	Off	

*Consult instructions for specific Furnace model for staging and airflow details.