



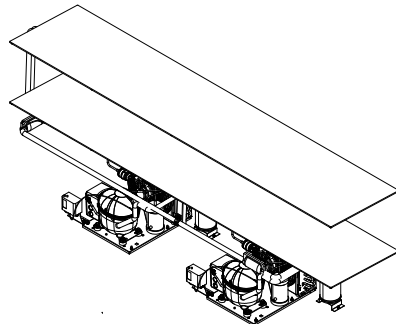
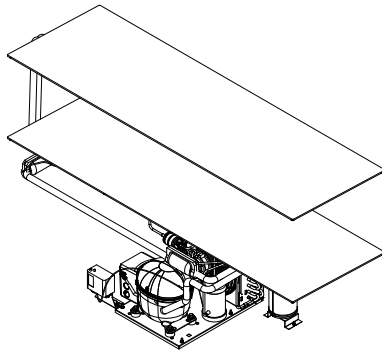
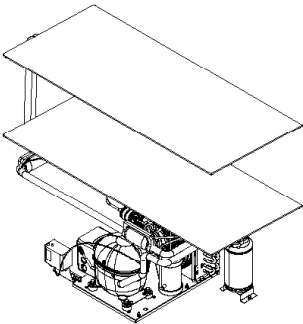
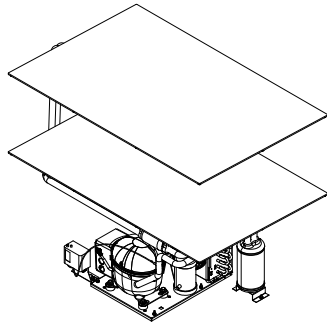
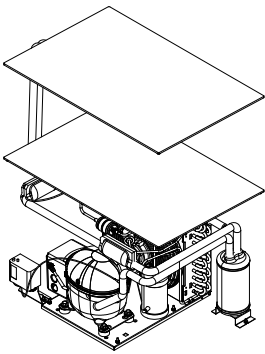
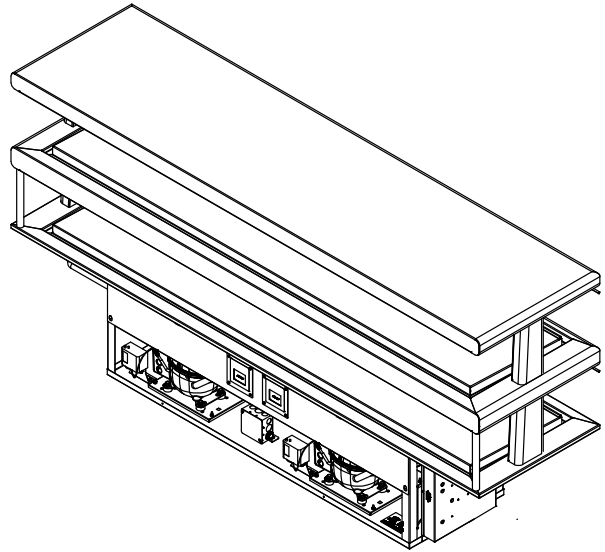
Your Solutions Partner

Illustrated Parts List

HOT FROST TWO TIER

MODELS:

HF35-HFL HF35-FOL HF48-HFL HF48FOL
HF50-HFL HF50-FOL HF64-HFL HF64-FOL
HF91-HFL, HF91-FOL

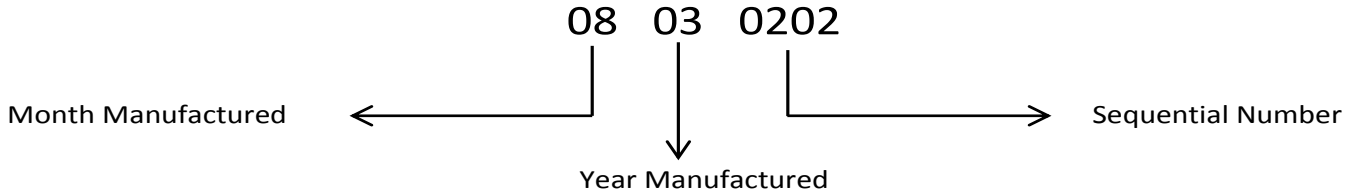


CAUTION: Please read this manual completely before attempting to install, operate or service this equipment

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How to Determine Manufacture Date from Duke Equipment Serial Numbers

All units currently manufactured in St. Louis and Sedalia, Missouri (After 2/1/2013):



(Example: 08030202 = Indicates the unit was manufactured in August of 2003)

Units Manufactured in St. Louis, Missouri (Before 2/1/2013):

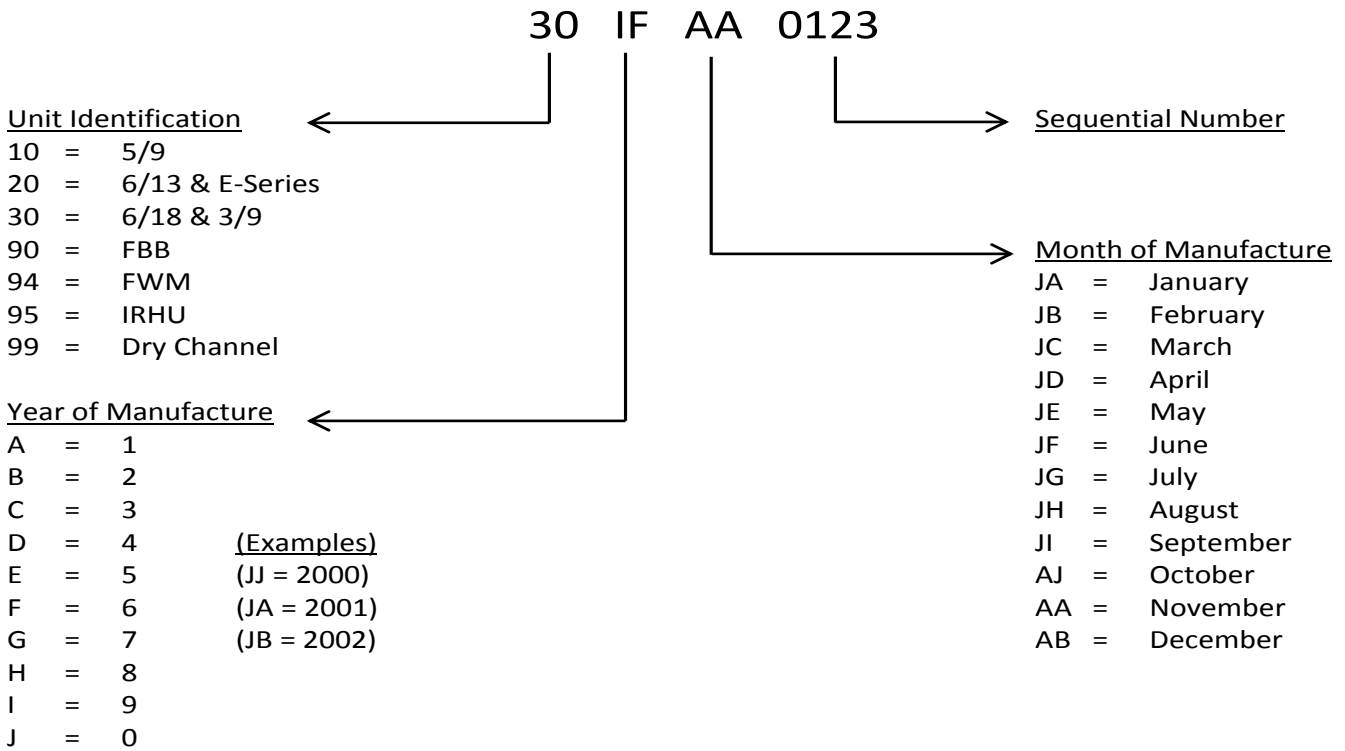


TABLE OF CONTENTS

Control/Electrical..... 4

Heaters and Lights5

Condensing Unit Illustration 6

HF35 Parts illustration..... 7

HF48 Parts Illustration 8

HF50 Parts Illustration 9

HF64 Parts Illustration 10

HF91 Parts Illustration 11

Wire Diagrams 12-15

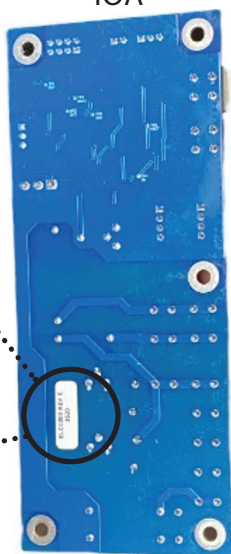
*TABLE 1

IOC-G Display Version	IOA Board Versions		
	ELC0200	ELC0576	ELC0805
ELC0353	✓	✗	✗
ELC0643	✓	✓	✗
ELC0804	✓	✓	✓

IOC-G DISPLAY BOARD

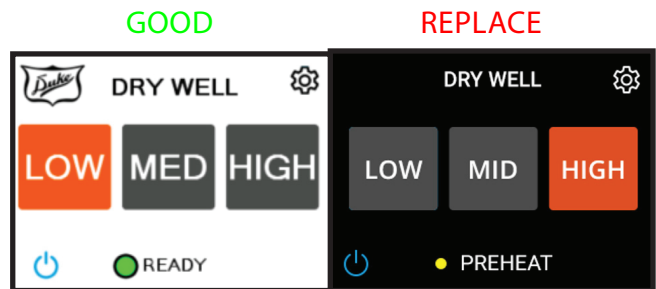


IOA

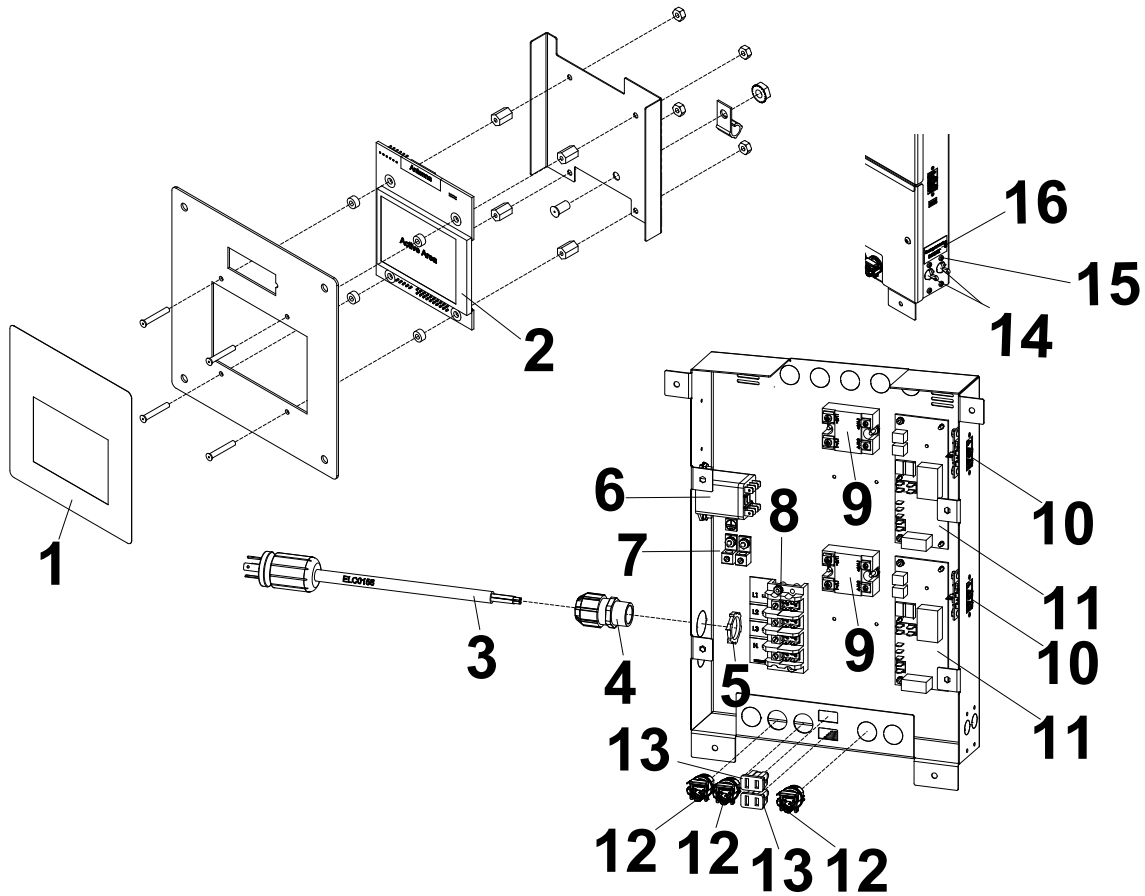


Part Number Location

IOC-G DISPLAY COLOR EXAMPLE

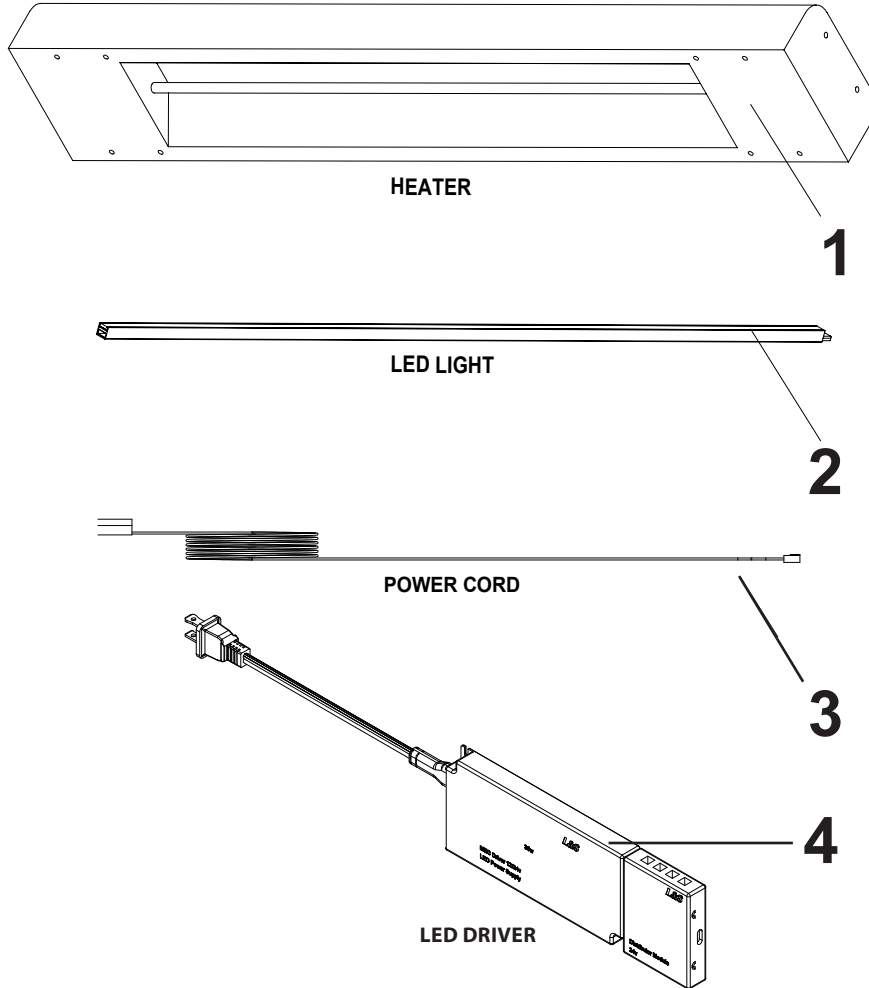


CONTROL/ELECTRICAL



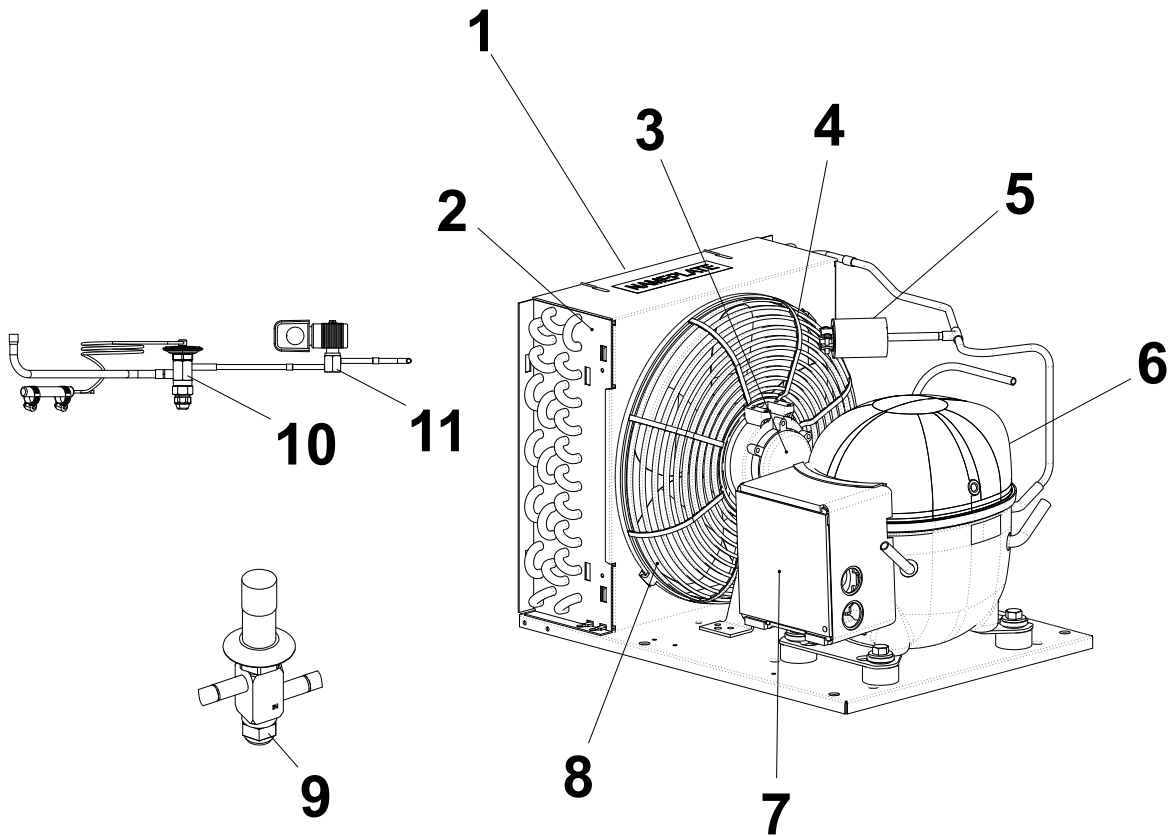
Item #	Part #	Description	HFL35	HFL48	HFL50	HFL64	HFL91	FOL35	FOL48	FOL50	FOL64	FOL91
1	523156	Mylar, Single loc-G Blue, W/Logo	2	2	2	2	2	2	2	2	2	2
*2	600586	Kit, loc-G Elc0804 Only Board Replacement (See Page 3 Table 1)	2	2	2	2	2	2	2	2	2	2
*NS	600587	Kit, loc-G & loa Board Replacement (See Page 3 Table 1)										
3	ELC0156	Nema L14-20p Molded Power Cord	1	1	1							
	ELC0178	Nema L14-30p Molded Power Cord				1						
	ELC0682	Power Cord, Nema 15-50p, 72"					1					
	157001	Cord Set, 125v L5-30 (10/3 Cord & #212335 Plug										1
	ELC0300	Cord, Power 15a						1	1	1	1	
4	115357	Connector,3/4"Liquidtight N.m .500-.750 Grip Range	1	1	1	1	1					
	212117	Strain Relief,W/ 1/2" Lock Nut Shc1022cr						1	1	1	1	
	212119	Strain Relief,W/ 3/4" Lock Nut Sch1037cr										1
	167568	Locknut,Conduit 3/4"	1	1	1	1	1					
6	290432	Picker Relay Replacement Kit	1	1	1	1	2	1	1	1	1	2
7	983385	Lug,Ground IlSCO Ta-2	2	2	2	2	2	2	2	2	2	2
8	120001	Block,Terminal 4 Pole	1	1	1	1	1	1	1	1	1	1
9	600373	Kit, Solid State Relay Replacement	2	2	2	2	4	2	2	2	2	4
10	ELC0402K	Kit, PCB Can & Display Connect - loa	2	2	2	2	2	2	2	2	2	2
*11	600585	Kit, loa Elc0805 Only Board Replacement (See Page 3 Table 1)	2	2	2	2	2	2	2	2	2	2
*NS	600587	Kit, loc-G & loa Board Replacement (See Page 3 Table 1)										
12	222101	Bushing,Heyco 1280 Strain Relief	3	8	8	8	10	3	4	4	4	6
13	ELC0575	Utility Outlet Snap-In, Nema 1-15r	2	2	2	2	2	2	2	2	2	2
14	522008	Breaker, Circuit 20a 1 Pole Carling					1	2				2
15	223395	Screw, #6-32x3/16" Pphms					2	4				4
16	114653	Hf Compressor Reset Label					1	1				1

HEATERS AND LIGHTS



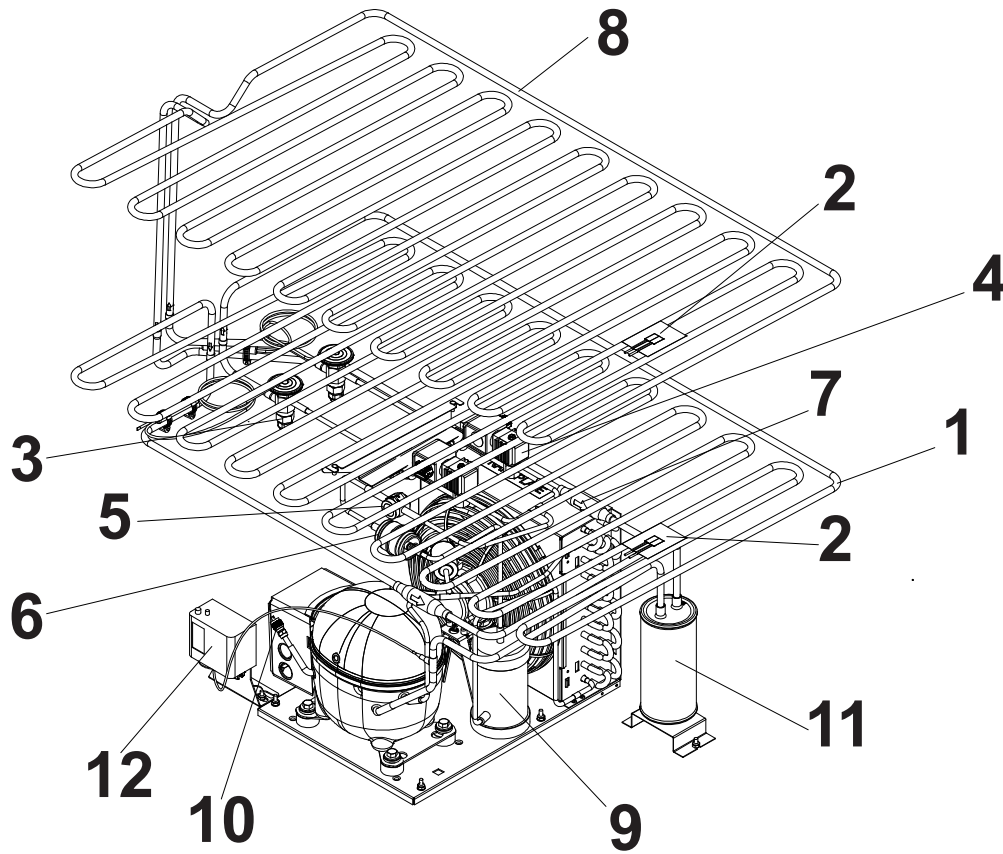
Item #	Part #	Description	Qty										
			HFL35	HFL48	HFL50	HFL64	HFL91	FOL35	FOL48	FOL50	FOL64	FOL91	
1	114052	Heat Lamp, Grn-24, 208v	2										
	114053	Heat Lamp, Grn-30, 208v	2										
	114054	Heat Lamp, Grn-36, 208v		2									
	114055	Heat Lamp, Grn-42, 208v		2	4		8						
	114056	Heat Lamp, 60, 208v				2							
	114062	Heat Lamp, 54, 208v				2							
2	514966	Led, Mini Tubular li, 24v, 4000k, 8" (200mm), 2.4w, Cri90			4	2					4	2	
	514967	Led, Mini Tubular li, 24v, 4000k, 12" (300mm), 3.6w, Cri90		2						2			
	514968	Led, Mini Tubular li, 24v, 4000k, 24" (570mm), 6.8w, Cri90	2	2	2		4	2	2	2			4
	514969	Led, Mini Tubular li, 24v, 4000k, 34" (870mm), 10.4w, Cri90					2						2
	514970	Led, Mini Tubular li, 24v, 4000k, 46" (1140mm), 13.6w, Cri90				2						2	
3	514972	Cord, Mini Tubular 2 lc 108"	2	2	2	2	2	2	2	2	2	2	2
4	514965	Mec Driver 24v 36w W/ 8 Port Distribution Module + Us Power Cord 2000mm (79")	2	2	2	2	2	2	2	2	2	2	2
	600596	Kit, L&S Driver conversion to HERA Replacement											

HF CONDENSING UNIT - REFRIGERATION



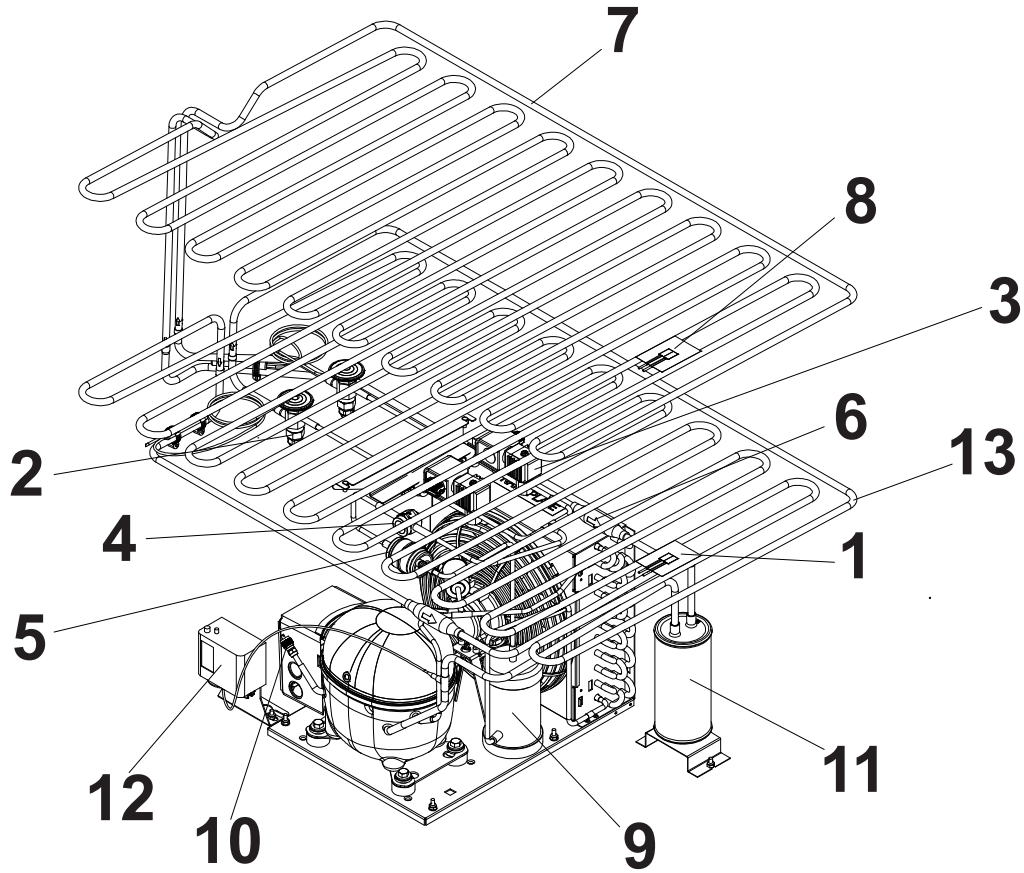
item #	part #	description	HFL35	HFL48	HFL50	HFL64	HFL91	FOL35	FOL48	FOL50	FOL64	FOL91
1	516823	Unit, Cond. ,(74/86)120v 60hz .1930btu/Hr M6zl-H054-laa-141	1	1	1	1	2	1	1	1	1	2
2	227852	Coil Condenser 066-0337-05, For 516800, 516803, 516820, 516823	1	1	1	1	2	1	1	1	1	2
3	217851	Assembly,Fan Motor/Brkt 050-0300-00(For #216882)	1	1	1	1	2	1	1	1	1	2
4	227853	Guard Cond. Fan Use #527863	1	1	1	1	2	1	1	1	1	2
5	226407	Control,High Press.cutout 440 Cutout/325cutin	1	1	1	1	2	1	1	1	1	2
6	227854	Compressor Afe17c4e-laa-901, For 516803, 516823	1	1	1	1	2	1	1	1	1	2
7	227861	Compressor, Start Cap 914-0053-04, For 516803,516823	1	1	1	1	2	1	1	1	1	2
	227854	Compressor Afe17c4e-laa-901, For 516803, 516823	1	1	1	1	2	1	1	1	1	2
	227859	Protector 971-0561-48, For 516803, 516823	1	1	1	1	2	1	1	1	1	2
8	217819	Blade,Fan #083-0130-00 74-86 Trichn	1	1	1	1	2	1	1	1	1	2
9	226045	Valve, Sporlan Cro-4-07/75 3x3 Odf	1	1	1	1	2	1	1	1	1	2
10	516831-1K	Valve,Expansion #Fbd-1/4-Z 2x3odf Adj 30° Hot Frost	2									2
	516831-2K	Valve,Expansion #Fbd-1/4-Z 2x3odf Adj 30° Hot Frost		2	2	2	2	2	2	2	2	
11	216553	Solenoid,Refrig W/Coil 120v	2	2	2	2	2	2	2	2	2	2

HF35 - REFRIGERATION



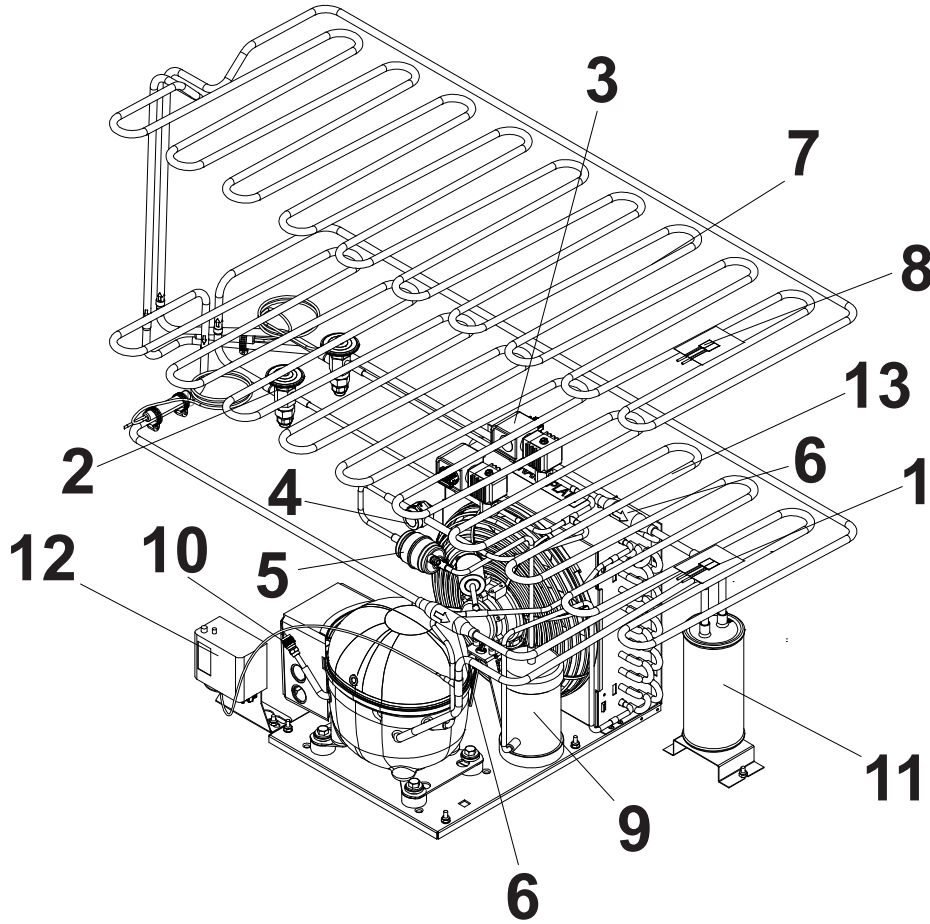
Item #	Part #	Description	Qty
1	114314	HF35 Lower Evap Coil	1
2	158278	RTD,1000 Ohm Short	4
3	516831-1K	Pre-Set Valve, Expansion Kit	2
4	216553	Solenoid,Refrig W/Coil 120v	2
5	216415	Glass,Sight Sa-12s Std#7	1
6	226831	Filter Drier, W/Pressure Tap C-032-S-T 1/4 Copper Conn	1
7	114080	Check Valve	2
8	114338	HF35 Upper Evap Coil	1
9	226052	Receiver, Parker P# Rt306v-Ts	1
10	216547	Valve 1/4 Schrader #Vax-4	1
11	226117	Accumulator, Sporlan 3" Dia. 3/8" Fittings 1bs	1
12	114078	Low Pressure Control	1

HF48 - REFRIGERATION



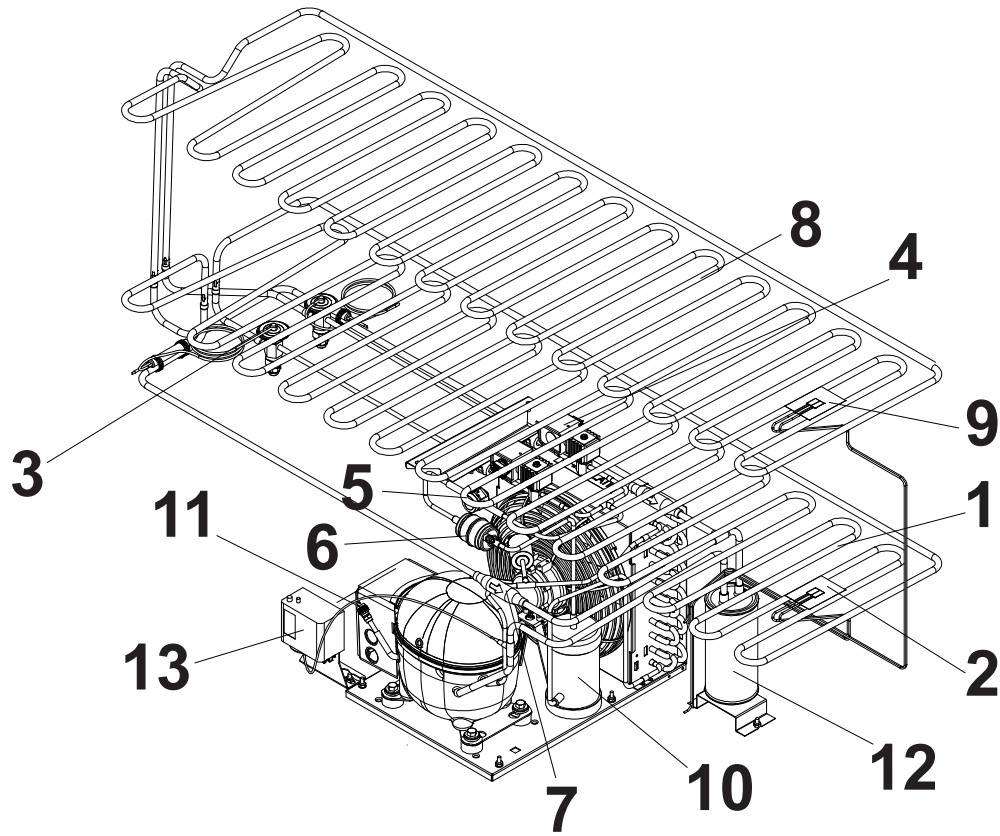
Item #	Part #	Description	Qty
1	158278	RTD,1000 Ohm Short	2
2	516831-2K	Pre-Set Valve, Expansion Kit	2
3	216553	Solenoid,Refrig W/Coil 120v	2
4	216415	Glass,Sight Sa-12s Std#7	1
5	226831	Filter Drier, W/Pressure Tap C-032-S-T 1/4 Copper Conn	1
6	114080	Check Valve	2
7	114592	HF48 Upper Evap Coil	1
8	158279	RTD,1000 Ohm Medium	2
9	226052	Receiver, Parker P# Rt306v-Ts	1
10	216547	Valve 1/4 Schrader #Vax-4	1
11	226117	Accumulator, Sporlan 3" Dia. 3/8" Fittings 1bs	1
12	114078	Low Pressure Control	1
13	114590	HF48 Lower Evap Coil	1

HF50 - REFRIGERATION



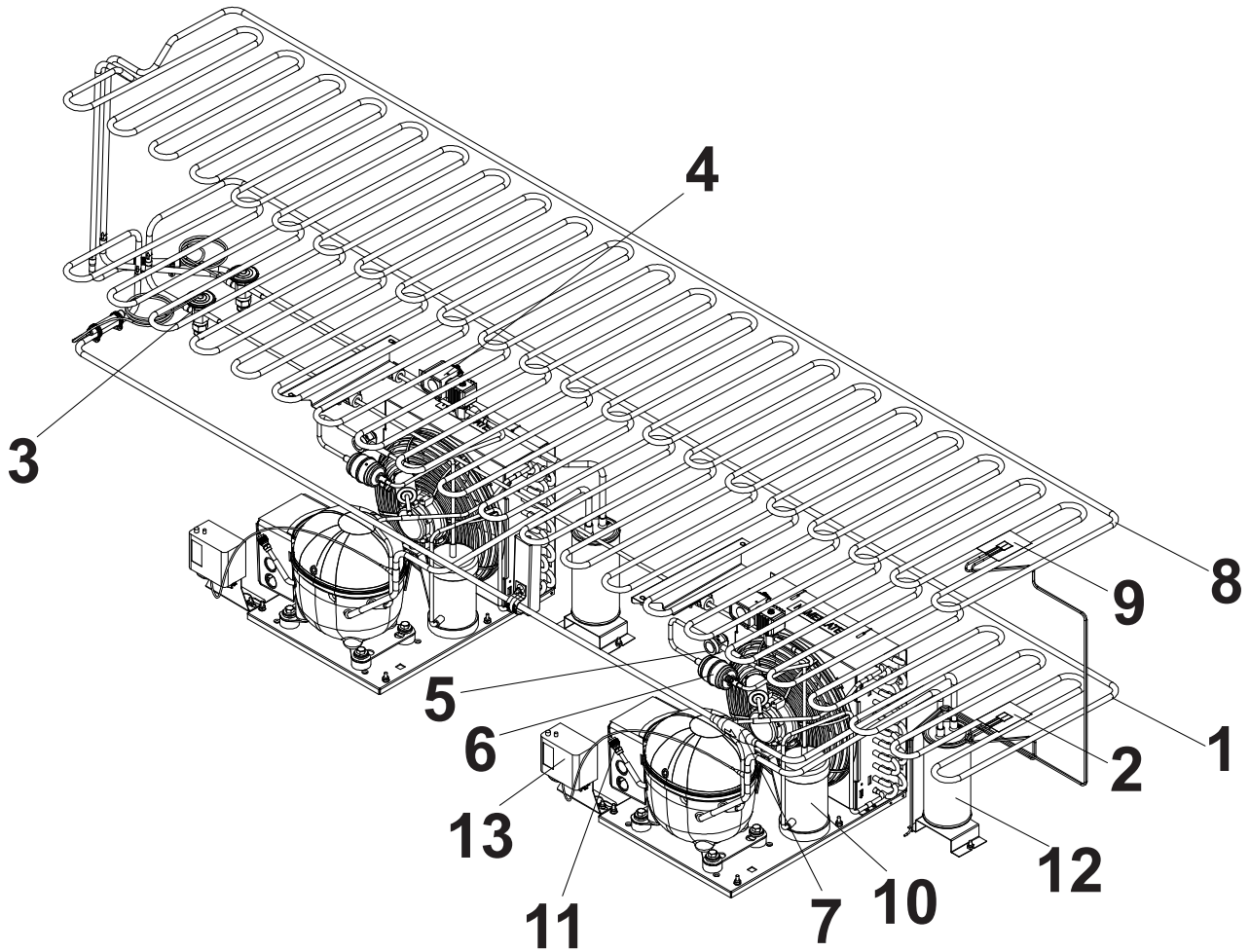
Item #	Part #	Description	Qty
1	158278	RTD,1000 Ohm Short	2
2	516831-2K	Pre-Set Valve, Expansion Kit	2
3	216553	Solenoid,Refrig W/Coil 120v	2
4	216415	Glass,Sight Sa-12s Std#7	1
5	226831	Filter Drier, W/Pressure Tap C-032-S-T 1/4 Copper Conn	1
6	114080	Check Valve	2
7	114597	HF50 Upper Evap Coil	1
8	158279	RTD,1000 Ohm Medium	2
9	226052	Receiver, Parker P# Rt306v-Ts	1
10	216547	Valve 1/4 Schrader #Vax-4	1
11	226117	Accumulator, Sporlan 3" Dia. 3/8" Fittings 1bs	1
12	114078	Low Pressure Control	1
13	114595	HF50 Lower Evap Coil	1

HF64 - REFRIGERATION



Item #	Part #	Description	Qty
1	114561	HF64 Lower Evap Coil	1
2	158278	RTD,1000 Ohm Short	2
3	516831-2K	Pre-Set Valve, Expansion Kit	2
4	216553	Solenoid,Refrig W/Coil 120v	2
5	216415	Glass,Sight Sa-12s Std#7	1
6	226831	Filter Drier, W/Pressure Tap C-032-S-T 1/4 Copper Conn	1
7	114080	Check Valve	2
8	114563	HF64 Upper Evap Coil	1
9	158279	RTD,1000 Ohm Medium	2
10	226052	Receiver, Parker P# Rt306v-Ts	1
11	216547	Valve 1/4 Schrader #Vax-4	1
12	226117	Accumulator, Sporlan 3" Dia. 3/8" Fittings 1bs	1
13	114078	Low Pressure Control	1

HF91 - REFRIGERATION

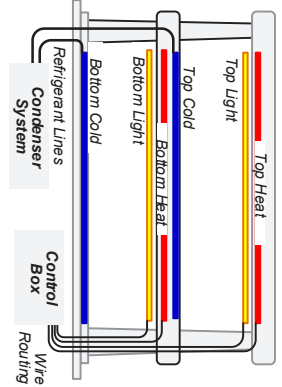


Item #	Part #	Description	Qty
1	114569	HF91 Lower Evap Coil	1
2	158278	RTD,1000 Ohm Short	2
3	516831-1K	Pre-Set Valve, Expansion Kit	2
4	216553	Solenoid,Refrig W/Coil 120v	2
5	216415	Glass,Sight Sa-12s Std#7	2
6	226831	Filter Drier, W/Pressure Tap C-032-S-T 1/4 Copper Conn	2
7	114080	Check Valve	2
8	114571	HF91 Upper Evap Coil	1
9	158279	RTD,1000 Ohm Medium	2
10	226052	Receiver, Parker P# Rt306v-Ts	2
11	216547	Valve 1/4 Schrader #Vax-4	2
12	226117	Accumulator, Sporlan 3" Dia. 3/8" Fittings 1bs	2
13	144078	Low Pressure Control	2

HOT FROST TWO TIER - HFL 35-64 WIRE DIAGRAM

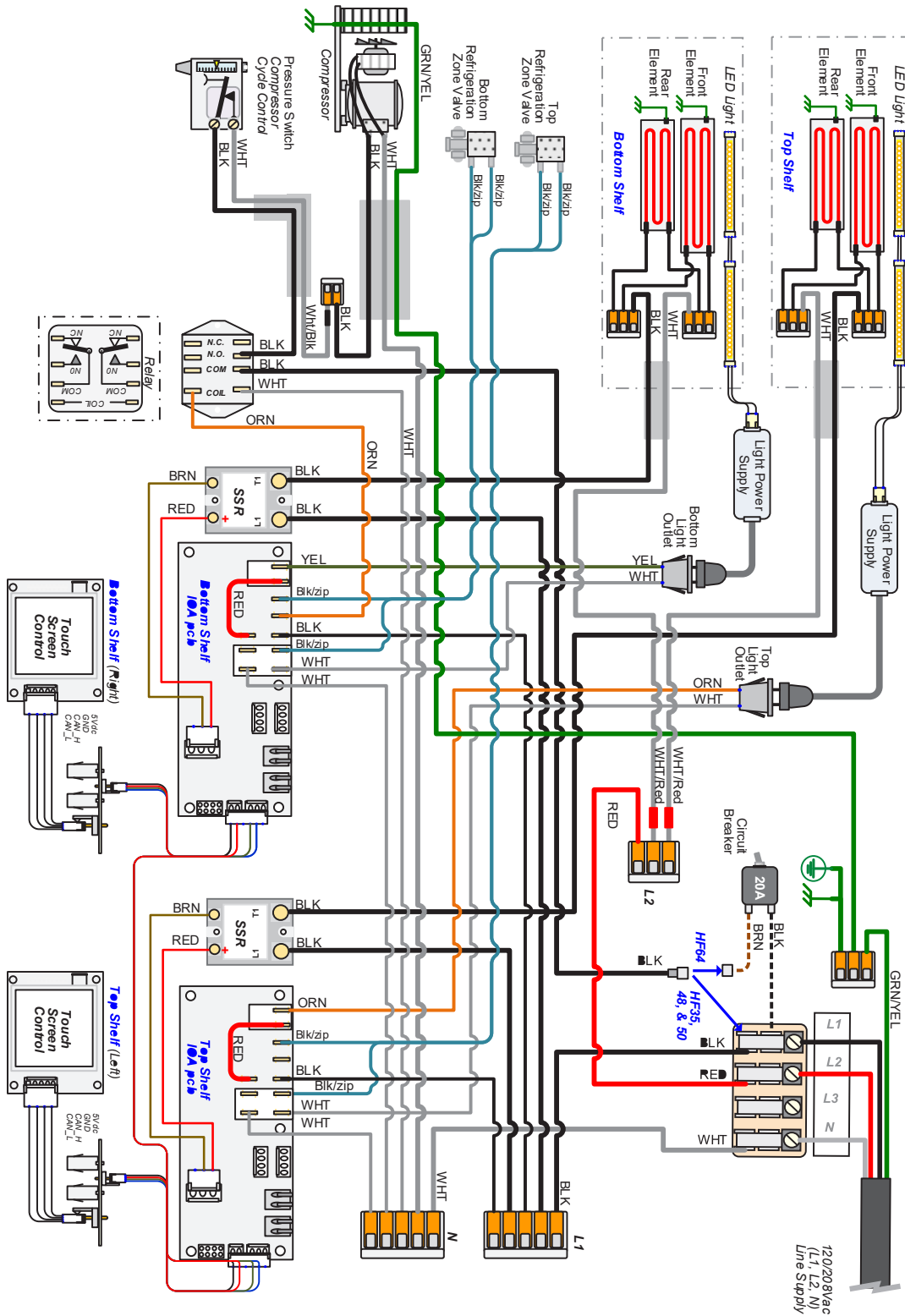


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 WD, HF35-64
 3/21/2022 Rev. C



Heat Element Configurations

Model	Top Shelf Heat	Lower Shelf Heat
HF35	Front: 24" .350W Rear: 30" .450W	Front: 24" .350W Rear: 30" .450W
HF48	Front: 42" .675W Rear: 36" .575W	Front: 42" .675W Rear: 36" .575W
HF50	Front: 42" .675W Rear: 42" .675W	Front: 42" .675W Rear: 42" .675W
HF64	Front: 54" .925W Rear: 60" .1050W	Front: 54" .925W Rear: 60" .1050W



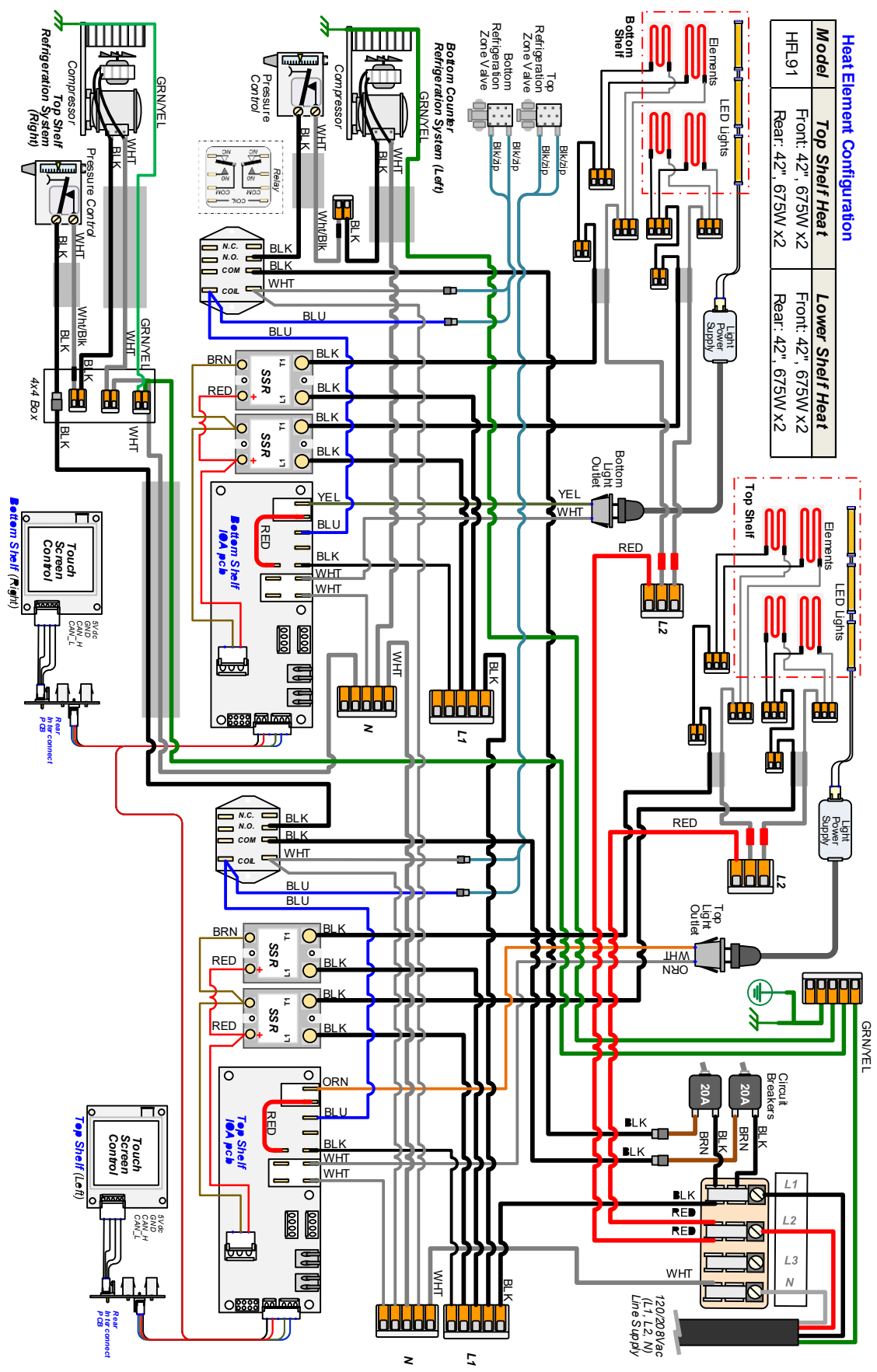
HOT FROST TWO TIER - HFL 91 WIRE DIAGRAM



ELC0669
 WD, HF91, HARDCOPY
 3/21/2022 Rev. C

Heat Element Configuration

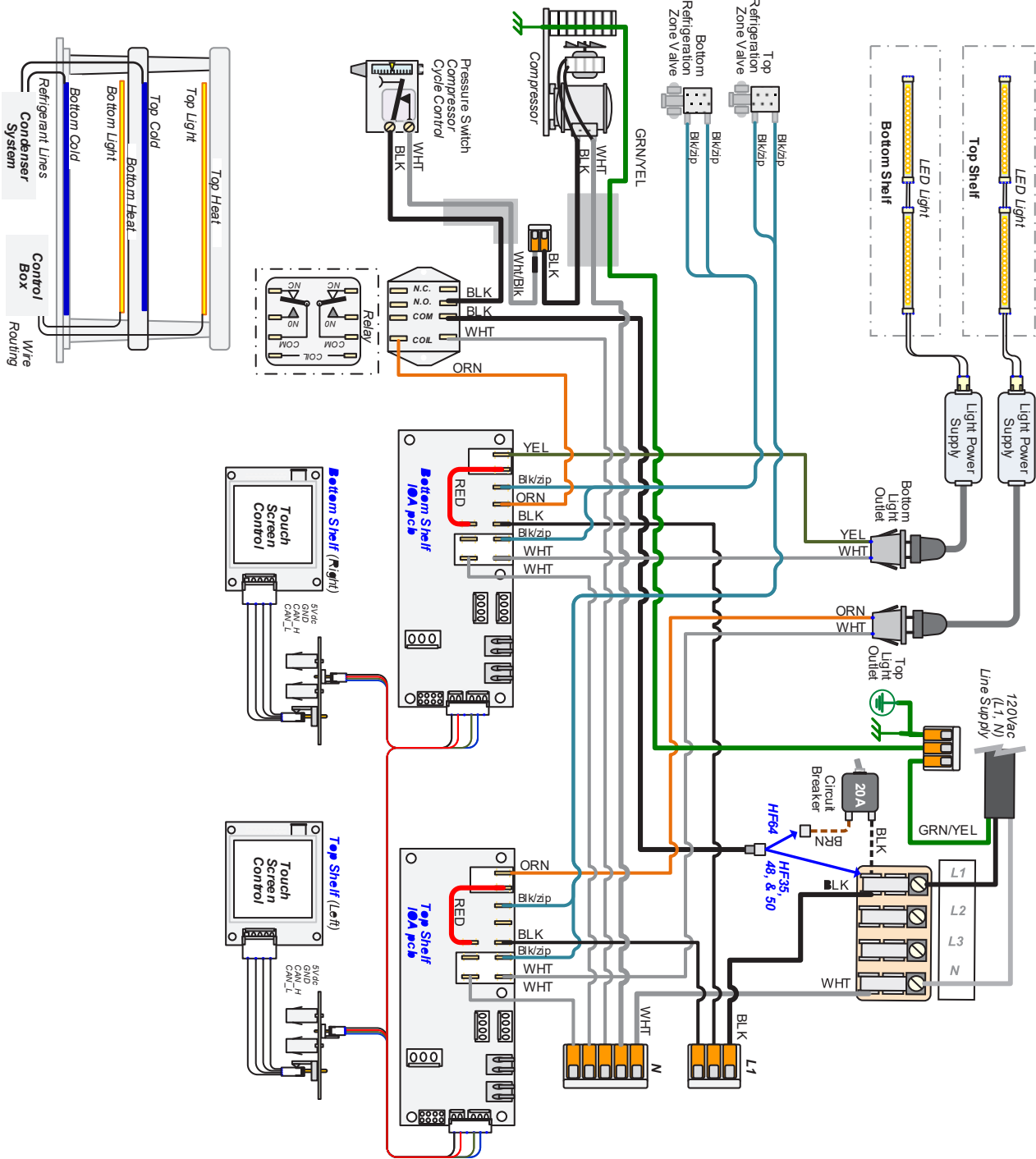
Model	Top Shelf Heat	Lower Shelf Heat
HFL91	Front: 42", 675W X2 Rear: 42", 675W X2	Front: 42", 675W X2 Rear: 42", 675W X2



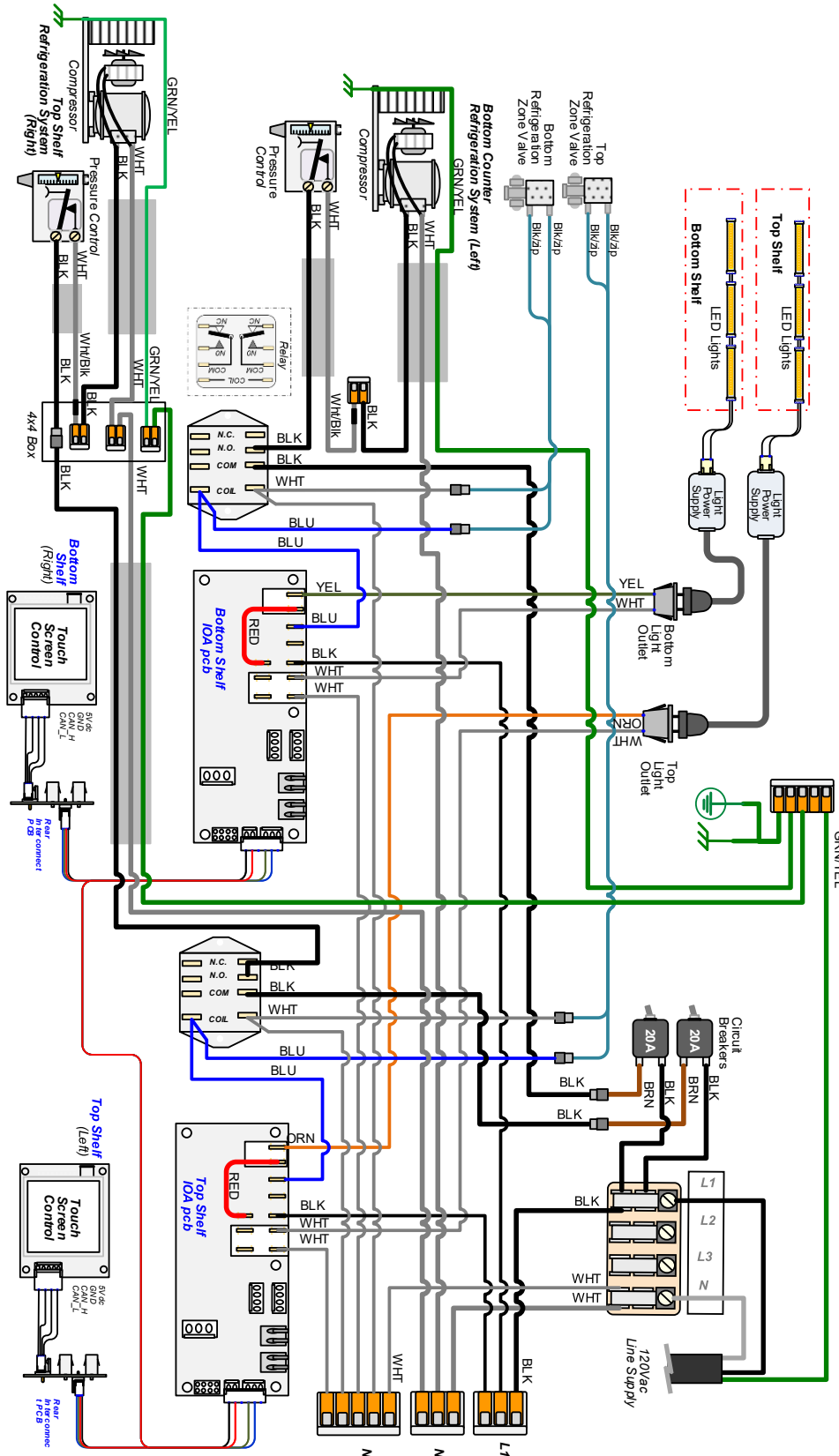
HOT FROST TWO TIER - FOL 35-64 WIRE DIAGRAM



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HOT FROST TWO TIER - FOL 91 WIRE DIAGRAM



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Notes



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