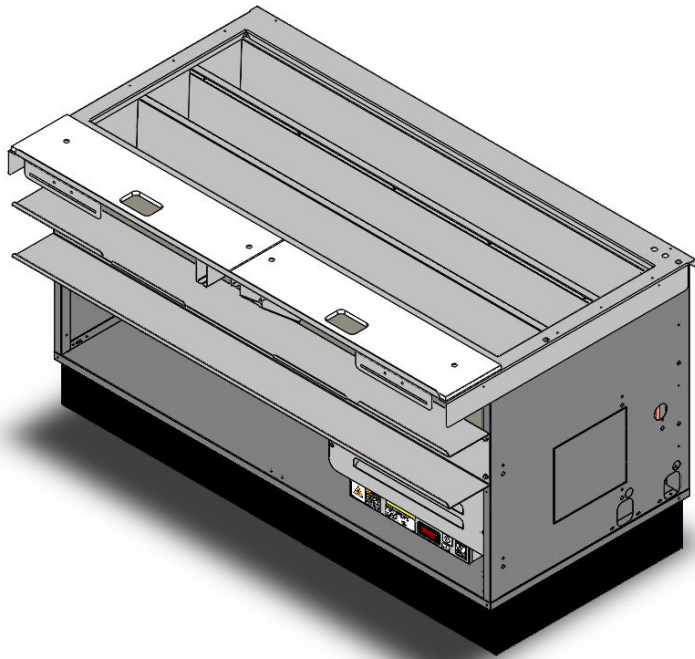




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Illustrated Parts List



MODELS:

SUB-CP-TC

R-290 REFRIGERANT, TRI-CHANNEL COLD PAN ASSEMBLIES:

2504490	2504492	2504494	2504496	2504498	2504502	2504503
2504504	2504505	2504506	2504507	2504509	2504511	2504512
2504514	2504516	2504518	2504520	2504522	2504523	2504524
2504525	2504526	2504527	2504529	2504531		

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Duke Manufacturing Co.

2305 N. Broadway • St. Louis, MO 63102

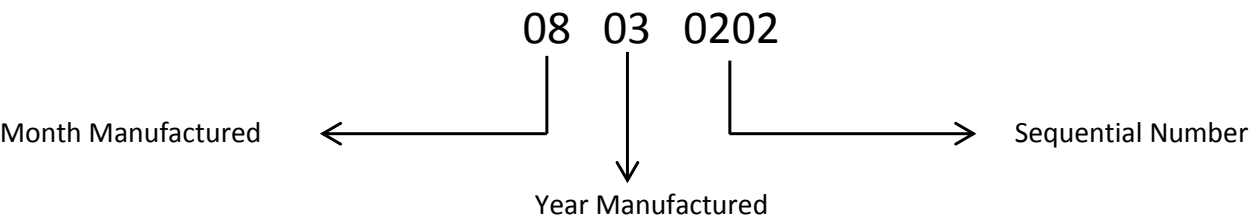
800.735.3853 • 314.231.1130

Fax: 314-231-5074

www.dukemfg.com

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):

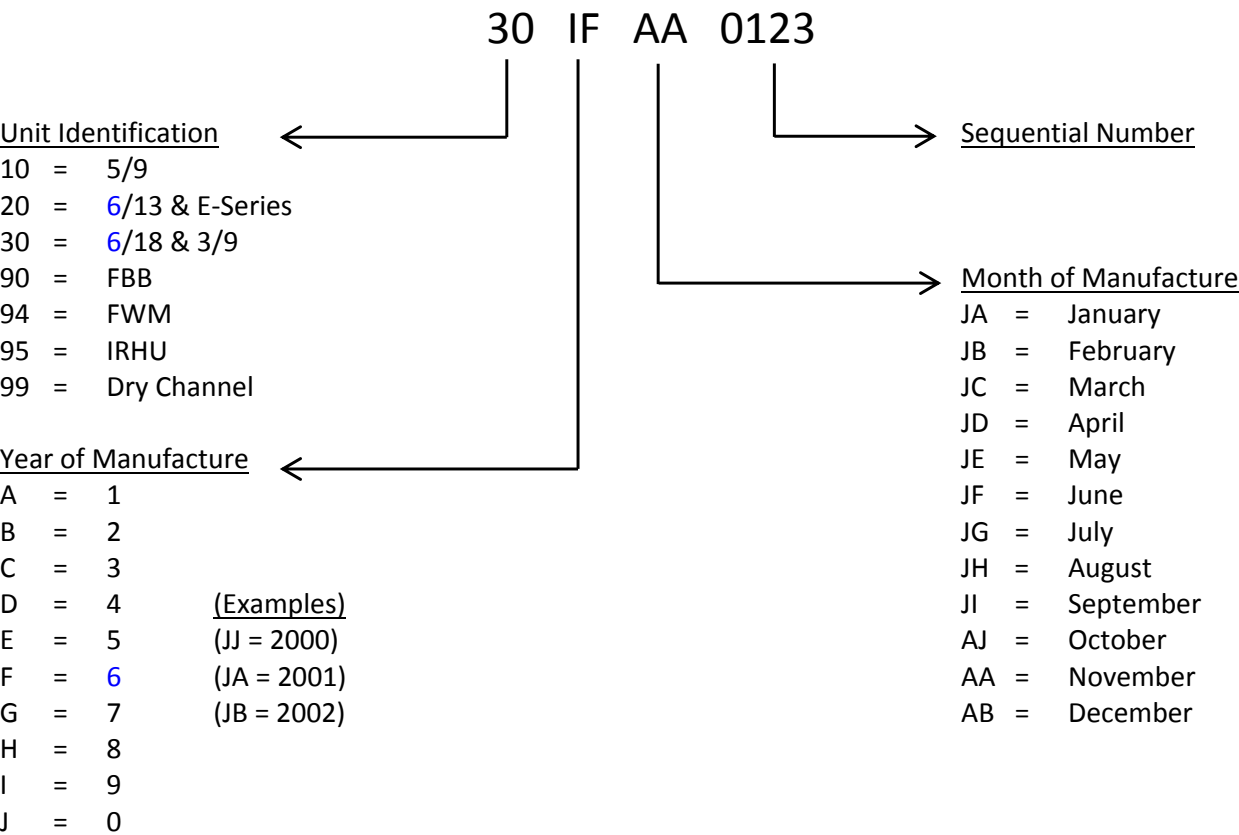
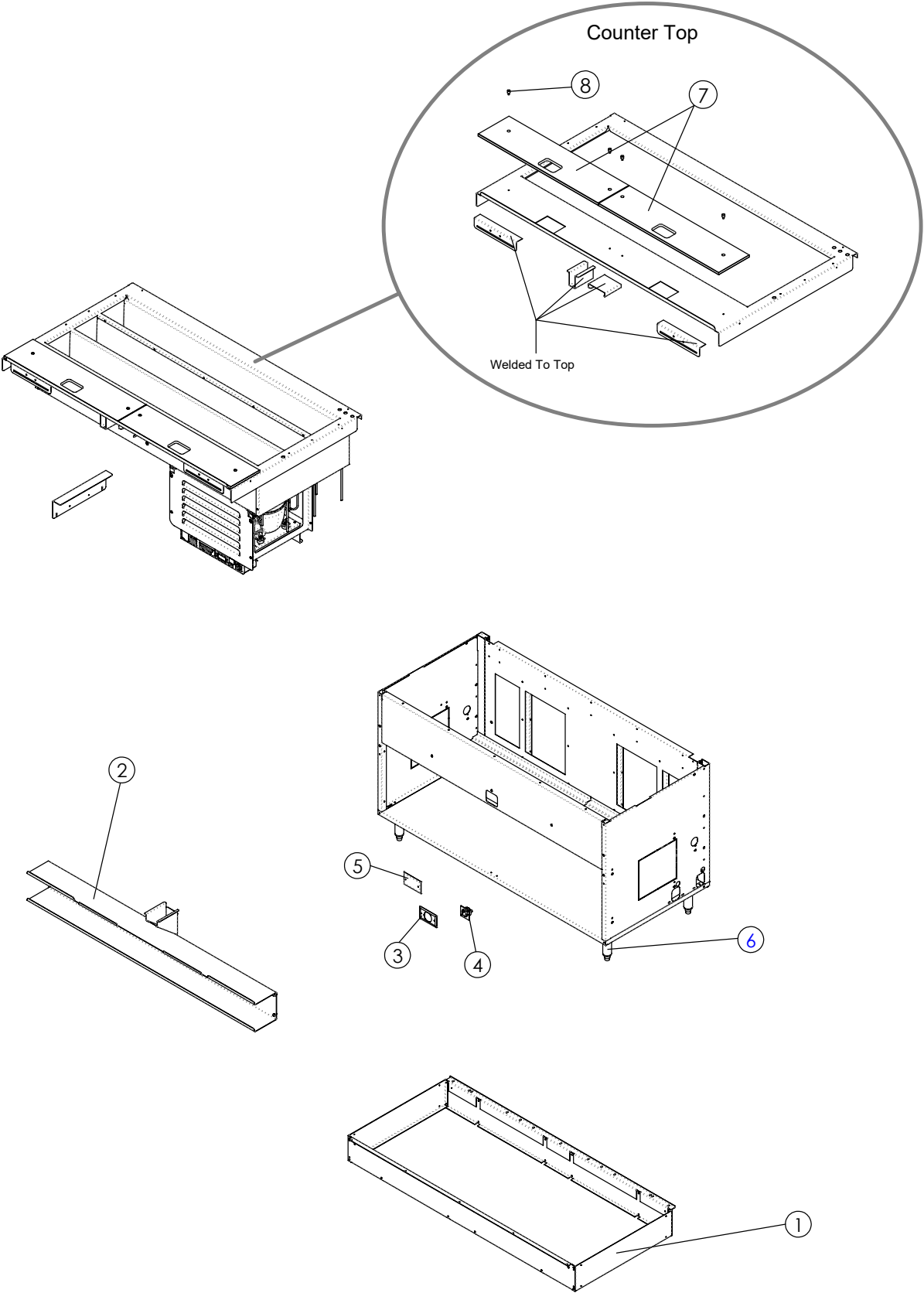


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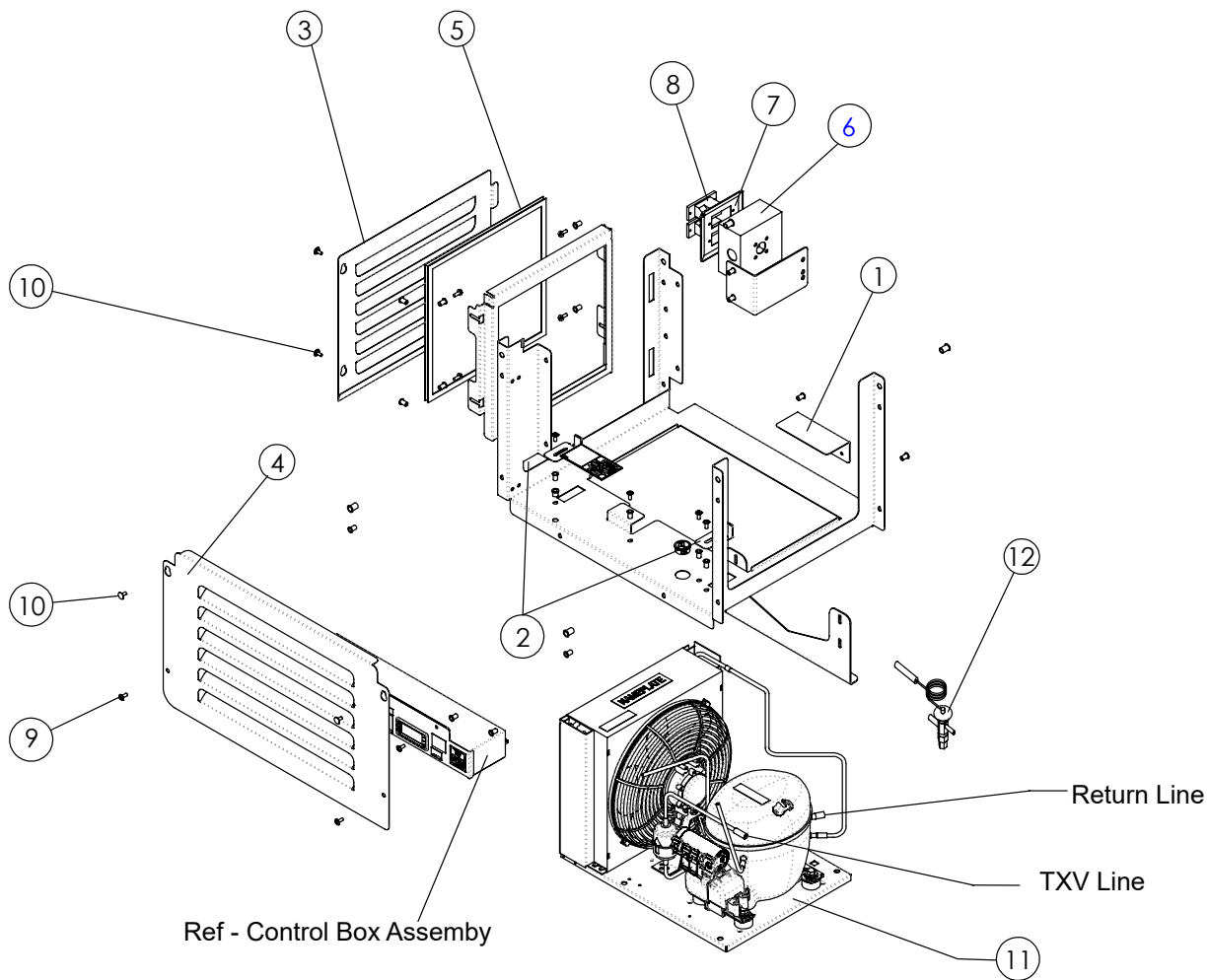
TRI-CHANNEL ASSEMBLY



TRI-CHANNEL ASSEMBLY

Item #	Part #	Description	36" Units	48" Units	60" Units	74" Units	86" Units
1	RS000234	Kickplate Tus 36 Cfg 36l X 30d	1				
	RS000235	Kickplate Tus 48 Cfg 48l X 30d		1			
	RS000236	Kickplate Tus 60 Cfg 60l X 30d			1		
	RS000239	Kickplate Tus 74 Cfg 74l X 30d				1	
	RS000240	Kickplate Tus 86 Cfg 86l X 30d					1
2	RS039804	Bain Func Shelf Assy 36	1				
	RS022480	Bain Func Shelf Assy 48		1			
	RS022481	Bain Func Shelf Assy 60			1		
	RS022482	Bain Func Shelf Assy 74				1	
	RS022483	Bain Func Shelf Assy 86					1
3	522017	Schuko Cover Plate For 70100x45 Schuko	1	1	1	1	1
4	522015	Recept Schuko Cee 7/3 Type F 250v, 16 Amp 2p+E	1	1	1	1	1
5	522016	Schuko Mounting Frame For 70100x45 Schuko	1	1	1	1	1
6	214556	Leg, 6" Adj Plate Mt Galv	4	4	4	6	6
Not Shown	213023	Leg Screw, 1/4-20 X 1/2" Trd Frm	16	16	16	24	24
7	RS048497	Board Carv 36" Func Metro Subway Bain	1				
	RS048498	Board Carv 48" Func Subway Bain		1			
	RS048551	Board Carv 60" Func Subway Bain			2		
	RS048499	Board Carv 74" Func Subway Bain				2	
	RS048500	Board Carv 86" Func Subway Bain					2
8	214728	Stud, Position Ss Carv Brd Set Screw Length- 5/8"	2	2	4	4	4
Not Shown	217284	Paint, Bottle/Brush, 1 Oz (Silver Hammer, 217102 Match)	1	1	1	1	1
Not Shown	258506	Service Assy, 16a, 250v, Schuko Replacement	1	1	1	1	1

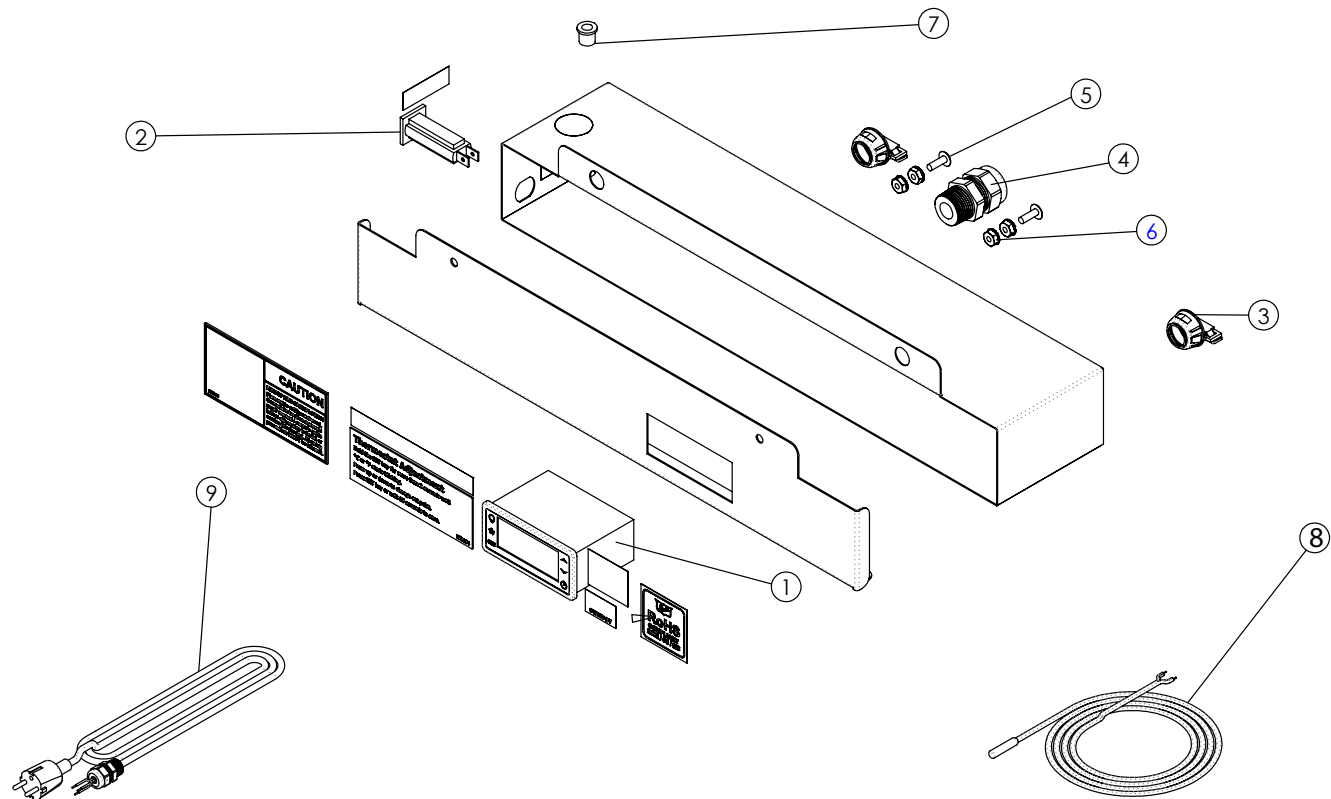
R-290 TRI-CHANNEL MECHANICAL ASSEMBLY



R-290 TRI-CHANNEL MECHANICAL ASSEMBLY

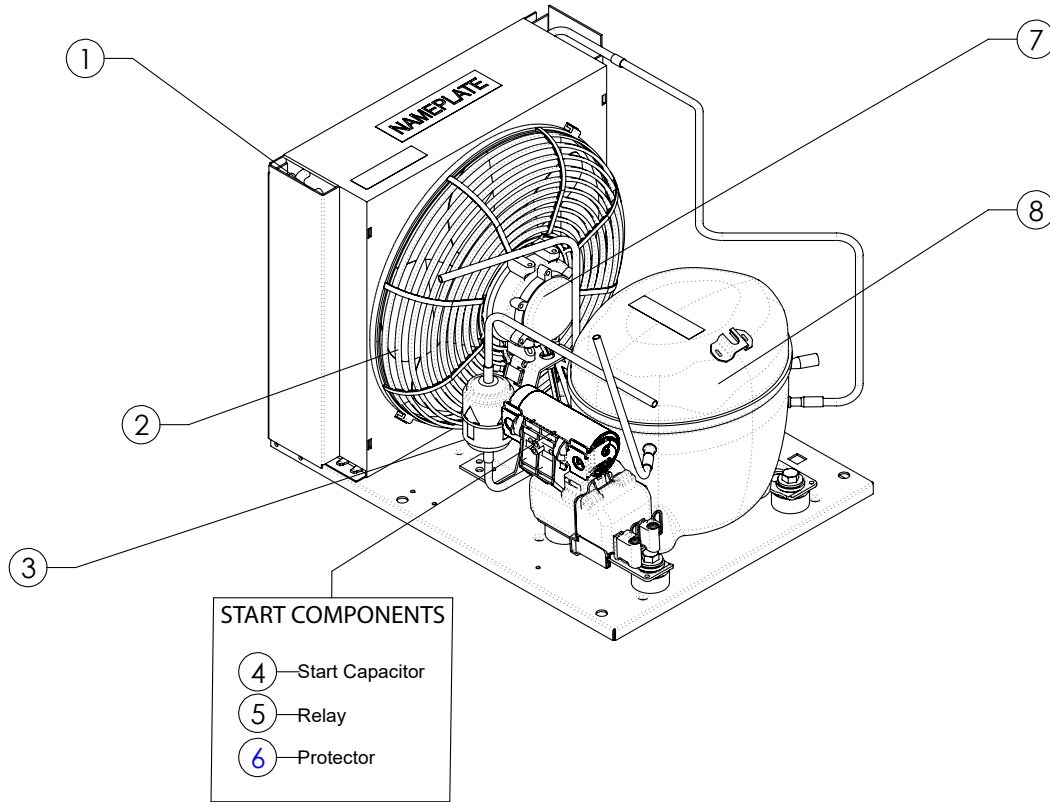
Item #	Part #	Description	36" Units	48" Units	60" Units	74" Units	86" Units
1	E100043	Bracket, Condensing Unit	1	1	1	1	1
2	E100042	Bracket, Condensing Unit Holder	2	2	2	2	2
3	E100029	Panel, Louver Filter, R-290 Tri Channel	1	1	1	1	1
4	E100030	Panel, Louver Operator , R-290 Tri Channel	1	1	1	1	1
5	524809	Filter, R-290 Tri-Channel	1	1	1	1	1
6	212134	Electrical Box, 4 X 4 X 2-1/8"	1	1	1	1	1
7	251898	Cover Plate, 220v Electric Box	1	1	1	1	1
8	212307	Receptacle, Single, European 220v 2 Prong	2	2	2	2	2
9	213027	Screw, 10-24 X 1/2" Pthms S/S	10	10	10	10	10
10	214486	Stud, Cover Ss Threaded Pin	4	4	4	4	4
11	516827	Emerson Cond. Unit, 220/240v 50hz R-290 Refrigerant, MUZP-0039-1AZ-321 (Additional Information On Following Pages)	1	1	1		
	516817	Tecumseh Cond. Unit, 220/240v50hz R-290 Refrigerant, AEX419U-FZ1CCK (Additional Information On Following Pages)	1	1	1		
	516828	Emerson Cond. Unit, 208/230v 60hz R-290 Refrigerant, Muzp-0039-la3-121 (Additional Information On Following Pages)	1	1	1		
	516818	Tecumseh Cond. Unit, 220/240v50hz R-290 Refrigerant, AXE424U-FZ3BCK (Additional Information On Following Pages)				1	1
	516833	Emerson Cond. Unit, 230v 60hz R-290 Refrigerant, Muzl-0066-lav-140 (Additional Information On Following Pages)				1	1
12	516829-41K	Service Kit, Txv, 41psig	1	1			
	516829-45K	Service Kit, Txv, 45psig			1	1	1

CONTROL BOX ASSEMBLY



Item #	Part #	Description	36" Units	48" Units	60" Units	74" Units	86" Units
1	526840-AK	Custom Programmed Control, Dixell Xr20ch, Kit	1	1	1	1	1
2	212309	Circuit Breaker - 2 Amp	1	1	1	1	1
3	212020	Connector, 3/8"	2	2	2	2	2
4	175515	Strain Relief,Power Cord Includes Nut	1	1	1	1	1
5	213359	Screw, 8-32 X 1/2 Thruss Philli S/S	2	2	2	2	2
6	155680	Nut, Keps 8-32 Hex Zp	4	4	4	4	4
7	212102	Bushing, Heyco #2030 Sb 375-4	1	1	1	1	1
8	526841-K	Kit, Temperature Probe R-290 (Used With 526840)	1	1	1	1	1
9	2504639-K	Kit, Cord & Plug, R-290 (Control To Wire Chase, 230v 50hz)	1	1	1	1	1
	654321-K	Kit, Cord & Plug, R-290 (Control To Wire Chase, 220v 60hz)	1	1	1	1	1

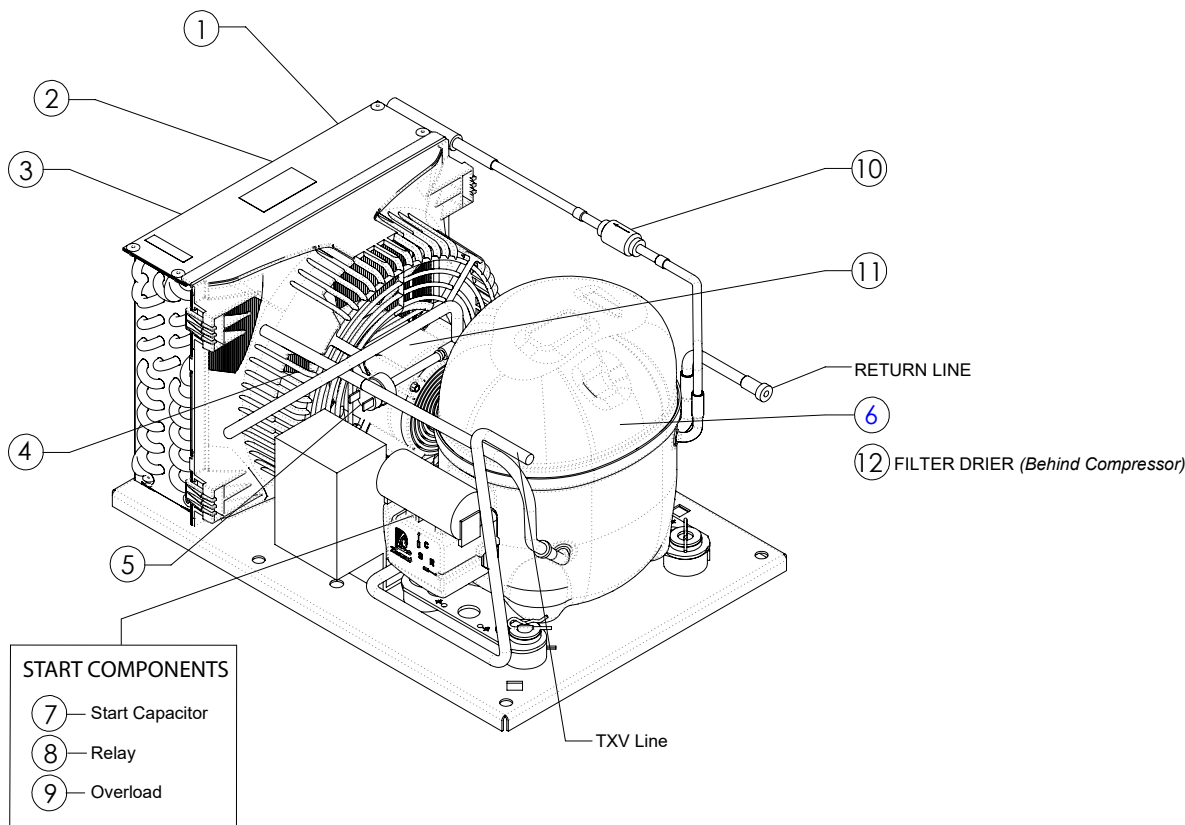
516827 - EMERSON CONDENSING UNIT



516827 Emerson Condensing Unit, 220/240V, 50Hz, R-290 Refrigerant

Item #	Part #	Description	36" Units	48" Units	60" Units	74" Units	86" Units
1	527910	Condenser Coil (Ref-516827, 516828 & 516833)	1	1	1		
2	527907	Condenser Fan Blade (Ref - 516827)	1	1	1		
3	227869	Filter, Dryer (Ref - 516827)	1	1	1		
4	527916	Compressor Start Compacitor (Ref - 516827)	1	1	1		
5	527913	Relay (Ref - 516827)	1	1	1		
6	527919	Protector (Ref - 516827)	1	1	1		
7	527905	Condenser Fan Motor (Ref - 516827)	1	1	1		
8	527901	Compressor, Aff12c1u-laz (Ref - 516827)	1	1	1		

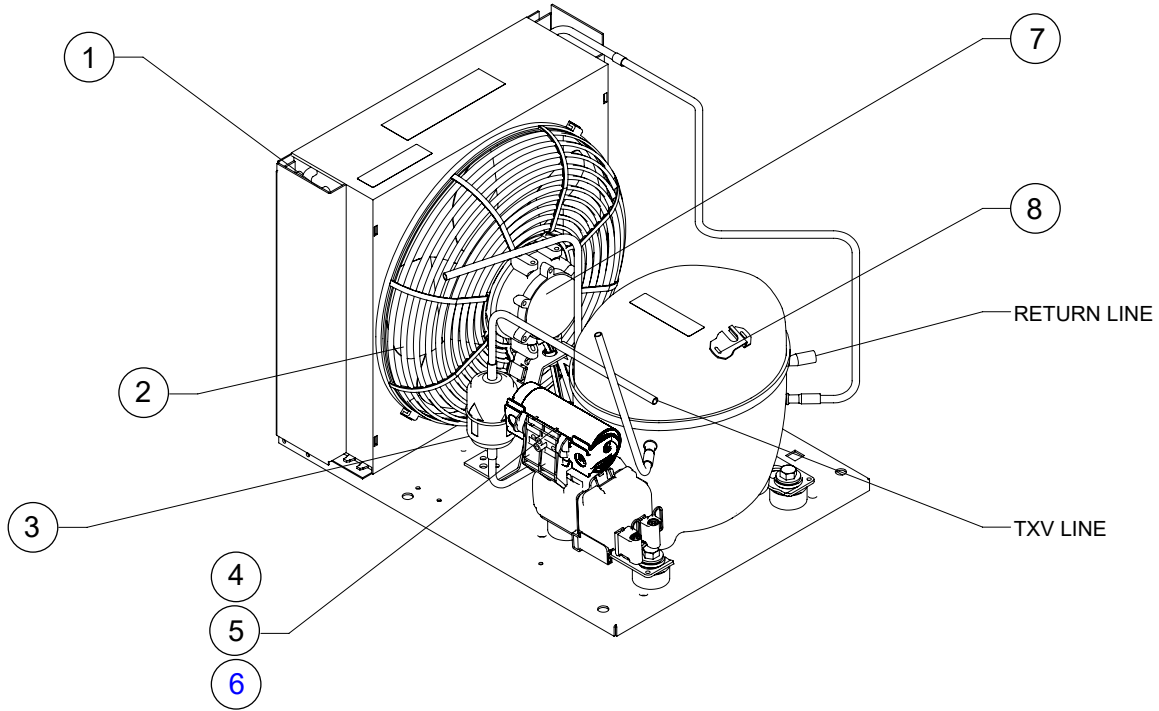
516817 - TECUMSEH CONDENSING UNIT



516817 Tecumseh Condensing Unit, 220/240V, 50Hz, R-290 Refrigerant

Item #	Part #	Description	36" Units	48" Units	60" Units	74" Units	86" Units
1	527821	Kit, Fan Guard Shroud, Cond. Coil (Ref-516817 & 516818)	1	1	1		
2	527822	Fan Guard Shroud (Ref-516817 & 516818)	1	1	1		
3	527819	Condenser Coil (Ref-516817 & 516818)	1	1	1		
4	527827	Fan Blade (Ref-516817 & 516818)	1	1	1		
5	227868	High Pressure Switch (Ref-516817 & 516818)	1	1	1		
6	527820	Compressor, AE1918E-679-J7 (Ref-516817)	1	1	1		
7	527824	Start Capacitor (Ref-516817)	1	1	1		
8	527825	Relay (Ref-516817)	1	1	1		
9	527855	Overload (Ref-516817 & 516818)	1	1	1		
10	527894	Check Valve (Ref-516817 & 516818)	1	1	1		
11	527826	Motor, Fan (Ref-516817 & 516818)	1	1	1		
12	227867	Filter, Dryer (Ref-516817 & 516818)	1	1	1		

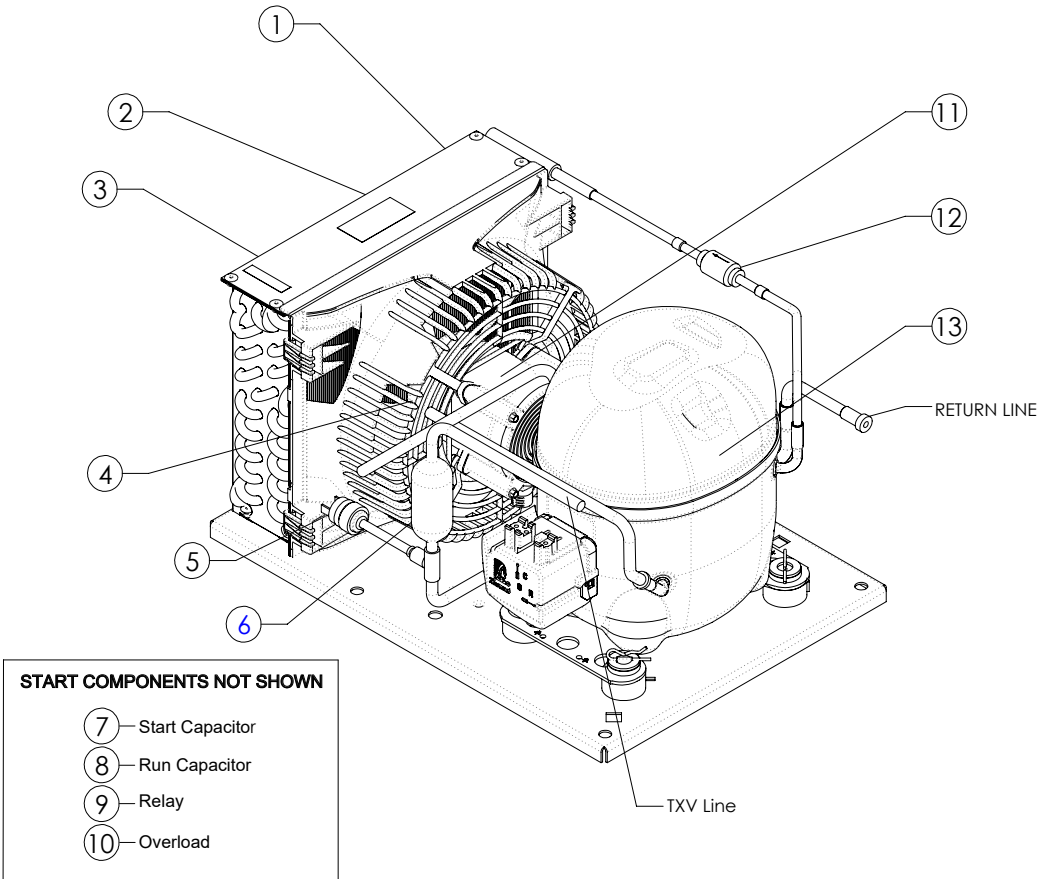
516828 - EMERSON CONDENSING UNIT



516828 Emerson Condensing Unit, 208/230V, 60Hz, R-290 refrigerant

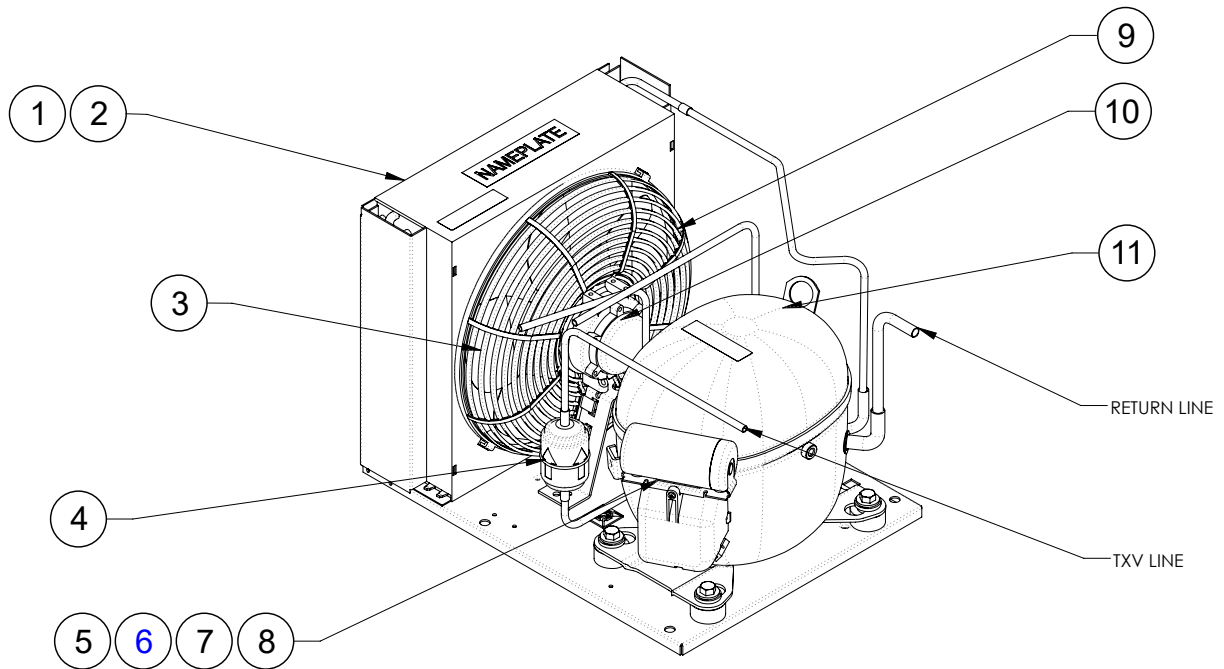
Item #	Part #	Description	36" Units	48" Units	60" Units	74" Units	86" Units
1	527910	Condenser Coil (Ref-516827, 516828 & 516833)	1	1	1		
2	527907	Condenser Fan Blade (Ref-516827 & 516828)	1	1	1		
3	227869	Filter Drier (Ref-516827 & 516828)	1	1	1		
4	527917	Compressor Start Capacitor (Ref-516828)	1	1	1		
5	227914	Start Relay (Ref-516828)	1	1	1		
6	527919	Protector (Ref-516827 & 527828)	1	1	1		
7	527905	Condenser Fan Motor (Ref-516827 & 516828)	1	1	1		
8	527902	Compressor (Ref-516828)	1	1	1		

516818 - TECUMSEH CONDENSING UNIT



516818 Tecumseh Condensing Unit, 220/240V, 50Hz, R-290 Refrigerant

Item #	Part #	Description	36" Units	48" Units	60" Units	74" Units	86" Units
1	527821	Kit, Fan Guard Shroud, Cond. Coil (Ref-516817 & 516818)				1	1
2	527822	Fan Guard Shroud (Ref-516817 & 516818)				1	1
3	527819	Condenser Coil (Ref-516817 & 516818)				1	1
4	527827	Fan Blade (Ref-516817 & 516818)				1	1
5	227868	High Pressure Switch (Ref-516817 & 516818)				1	1
6	227867	Filter, Dryer (Ref-516817 & 516818)				1	1
7	527852	Capacitor, Start (Ref-516818)				1	1
8	527853	Capacitor, Run (Ref-516818)				1	1
9	527854	Relay (Ref-516818)				1	1
10	527855	Overload (Ref-516818)				1	1
11	527826	Motor, Fan (Ref-516817 & 516818)				1	1
12	527894	Check Valve, (Ref-516817 & 516818)				1	1
13	527851	Compressor, AE1902E-208-J7 (Ref-516818)				1	1

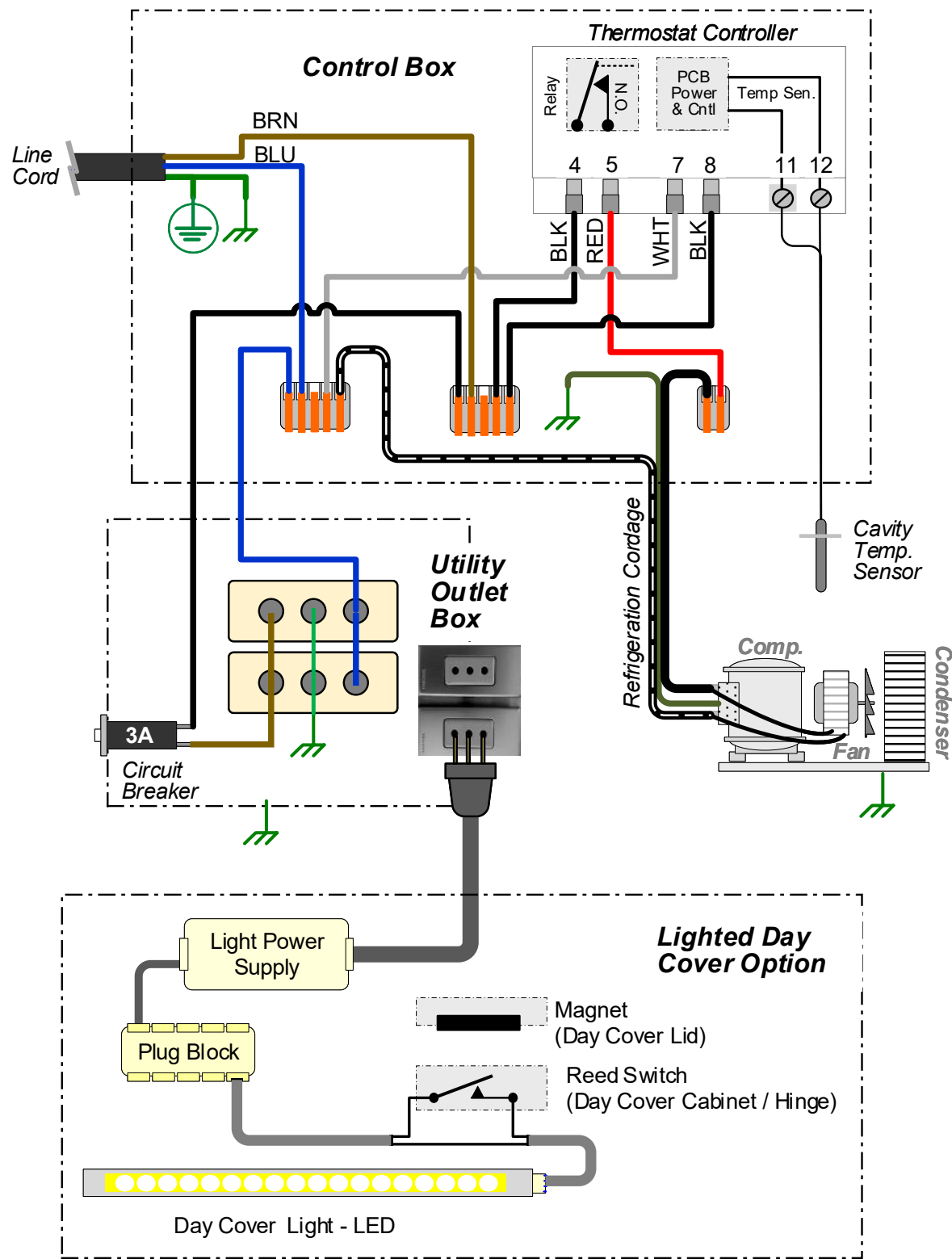
516833 - EMERSON CONDENSING UNIT

516833 Emerson Condensing Unit, 230V 60Hz, R-290 refrigerant

Item #	Part #	Description	36" Units	48" Units	60" Units	74" Units	86" Units
1	527910	Condenser Coil (Ref-516827, 516828 & 516833)				1	1
2	527866	Condenser Coil With Shroud (Ref-516833)				1	1
3	217819	Condenser Fan Blade (Ref-516833)				1	1
4	114451	Filter Drier (Ref-516833)				1	1
5	527865	Start Capacitor (Ref-516833)				1	1
6	527862	Relay (Ref-516833)				1	1
7	527861	Protector (Ref-516833)				1	1
8	527869	Terminal Cover (Ref-516833)				1	1
9	527867	Fan Schroud (Ref-516833)				1	1
10	217868	Condenser Fan Motor (Ref-516833)				1	1
11	527860	Compressor (Ref-516833)				1	1

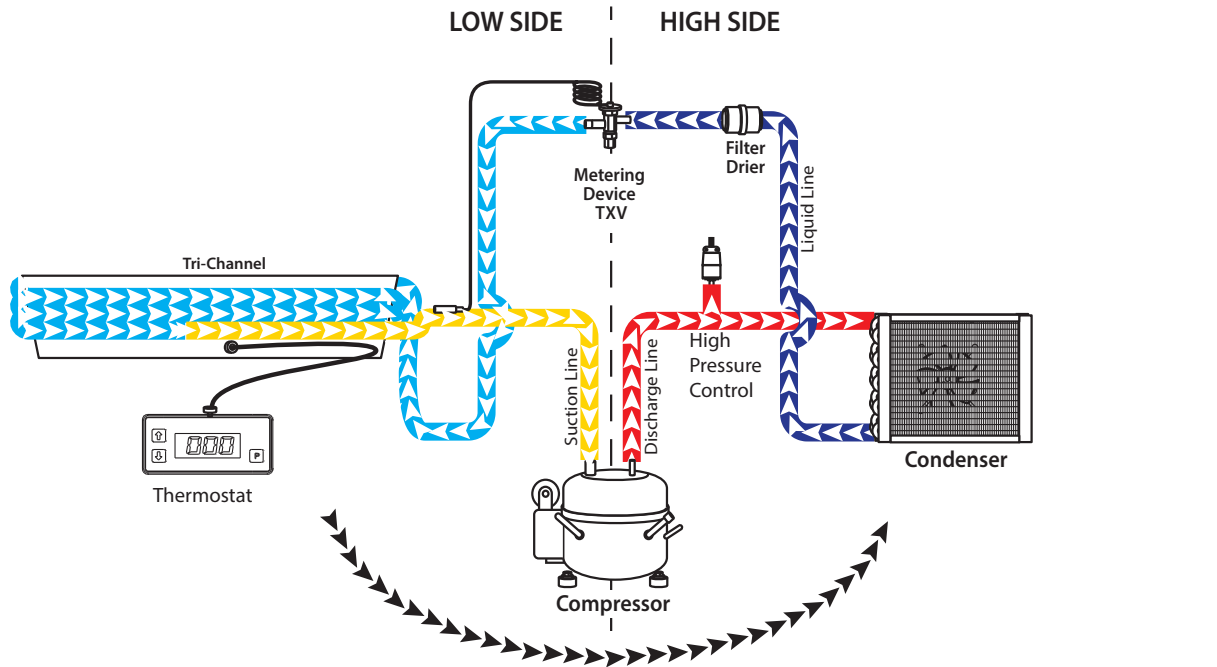
WIRING DIAGRAM ELC0395

Wire Diagram - Tri-Channel 220V & 230V
(R290) ELC0395 Rev. B

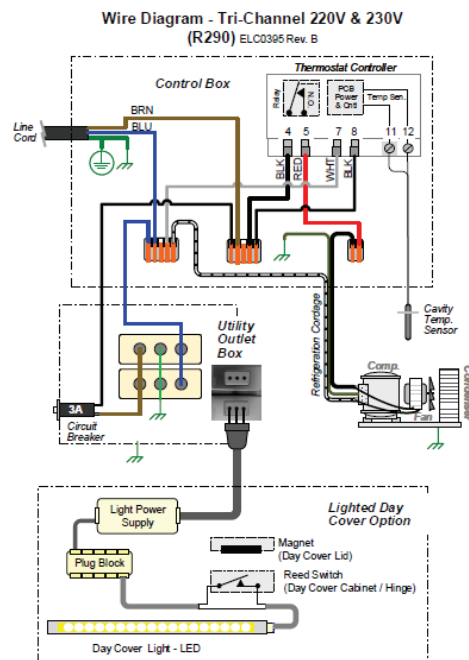


FLOW DIAGRAM - R290 REFRIGERANT

TRI-CHANNEL, R290 REFRIGERATION SYSTEM



Tri-Channel (R290 Refrigerant)	
Voltage	208-230v 60hz 220/240 50hz
Control	Dixell XR20CH R-290 Controller
Probe	Dixell XR20CH Probe
36"	90 grams
48"	90 grams
60"	110 grams
74"	110 grams
86"	120 grams
Super Heat	4-10°
Sub Cooling	10-15°
High Pressure Range @75°	170-190 psig
Low Pressure Range @75°	20-40 psig
36-60"	
LRA	18.3
RLA	2.3
74-86"	
LRA	17.5
RLA	1.8
Condenser Fan	0.27
HPCO	Cut out 450 psi
(Tecumseh Units Only)	Cut In 280 psi





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