

REPLACEMENT PARTS FOR UNIT HEATERS

MODELS APD AND UDAP: STANDARD POWER VENT FAN TYPE
MODEL UDBP: STANDARD POWER VENT BLOWER TYPE
MODEL UDAS: SEPARATED COMBUSTION FAN TYPE
MODEL UDBS: SEPARATED COMBUSTION BLOWER TYPE

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IMPORTANT

1. Always include complete model and serial number so that any specification change can be considered for parts replacement. It can save time and expense.
2. In keeping with our policy of continuous product improvement, we reserve the right to alter any information shown here. Specifications are subject to change without notice.
3. We reserve the right to substitute functional replacements.
4. Order by Part Number (PN) not by option designation.

WARRANTY (ALL MODELS)

- One-year limited warranty on the heater.
- Nine-year extended limited warranty on the heat exchanger, burner, and flue collection box assembly.
- Four-year extended limited warranty on all electrical and mechanical operating components (with the exception of blower belts).
- **Contact your distributor for details.**



REFERENCES

Table 1. Related Technical Manuals Available from Factory Distributor		
Type	Form	PN
Installation/operation (all power vent and separated combustion unit heaters)	D300519 I-UDA&APD	195673
Vent installation (all power vent fan and blower type unit heaters)	I-UD&APD Series V-PV	195675
Vent installation (separated combustion fan and blower type unit heaters)	I-UD-V-SC	195676
Vent installation (power vent fan type unit heater with option AV6, common vent)	I-UD-V-CV	195677
High-altitude kit installation	I-UD&APD Series HA	197081
Gas conversion kit installation	CP-UD&APD Series GC	197209
Installation/operation (all power vent and separated combustion blower type unit heaters)	I-UDB	202658
Replacement parts	P-UD&APD	263995



RATING PLATE

Sample Rating Plates

Standard Power Fan Type Unit

MADE IN MEXICO	
	
UNIT HEATER	
CATEGORY [Z]	
ANSI Z83.8 [A] CSA 2.6 [A'] UNIT HEATER	
CSA .10.96 U.S. (2nd Ed.) UNIT HEATERS FOR RESIDENTIAL INSTALLATION	
MODEL [B] [C]	
SERIAL NO.	
[D] VOLTS [D] PH [D] HZ MAXIMUM TOTAL INPUT [D] AMPS	
TYPE OF GAS: [E]	
FOR USE AT 0-2000 FEET, 0-610 METERS OF ALTITUDE.	
ORIFICE SIZE [F] DRILL HAS BEEN FACTORY ADJUSTED	
NORMAL INPUT	SEA LEVEL [J] BTU/HR
THERMAL OUTPUT CAPACITY	[L] BTU/HR
MINIMUM INPUT(-2 MODELS)	[M] BTU/HR
NORMAL MANIFOLD PRESSURE	[G] IN.W.C.
MIN. PERMISSIBLE GAS SUPPLY PRESSURE	
FOR PURPOSE OF INPUT ADJUSTMENT. [H] IN.W.C.	
CLEARANCES TO COMBUSTIBLE CONSTRUCTION: TOP-[N] ",	
FLUE CONNECTION-6", CONTROL SIDE-18", OPP. SIDE-[P] ",	
BOTTOM-1", FRONT-36".	
FOR ALTERNATE INSTALLATIONS USE THE LATEST EDITIONS OF	
THE APPROPRIATE STANDARD LISTED BELOW:	
FOR AIRCRAFT HANGARS	USE STANDARD ANSI/NFPA 409
FOR PARKING STRUCTURES	USE STANDARD ANSI/NFPA 88A
FOR REPAIR GARAGES	USE STANDARD ANSI/NFPA 88B
THIS UNIT IS NOT FOR USE WITH DUCTS.	
THIS UNIT IS NOT FOR USE WITH FILTERS.	
IN THE EVENT THE FLAME ROLLOUT SENSOR CAUSES THE	
HEATER TO SHUT OFF, DETERMINE AND CORRECT THE CAUSE.	
FAILURE TO DO SO COULD RESULT IN PERSONAL INJURY OR	
DEATH. TO RESET, DEPRESS THE BUTTON ON THE SENSOR	
LOCATED ON THE BURNER BOX ASSEMBLY.	

Standard Power Blower Type Unit

MADE IN MEXICO	
	
UNIT HEATER	
CATEGORY [Z]	
ANSI Z83.8 [A] CSA 2.6 [A'] UNIT HEATER	
MODEL [B] [C]	
SERIAL NO.	
[D] VOLTS [D] PH [D] HZ MAXIMUM TOTAL INPUT [D] AMPS	
TYPE OF GAS: [E]	
FOR USE AT 0-2000 FEET, 0-610 METERS OF ALTITUDE.	
ORIFICE SIZE [F] DRILL	
NORMAL INPUT	SEA LEVEL [J] BTU/HR
THERMAL OUTPUT CAPACITY	[L] BTU/HR
MINIMUM INPUT(-2 MODELS)	[M] BTU/HR
NORMAL MANIFOLD PRESSURE	[G] IN.W.C.
MIN. PERMISSIBLE GAS SUPPLY PRESSURE	
FOR PURPOSE OF INPUT ADJUSTMENT. [H] IN.W.C.	
TEMPERATURE RISE RANGE FROM [Q] DEG. F. TO [R] DEG. F.	
MAXIMUM EXTERNAL STATIC PRESSURE [S] IN. W.C.	
CLEARANCES TO COMBUSTIBLE CONSTRUCTION: TOP-[N] ", FLUE	
CONNECTION-6", CONTROL SIDE-18", OPP. SIDE-[P] ", BOTTOM-1", FRONT-36"	
FOR ALTERNATE INSTALLATIONS USE THE LATEST EDITIONS OF THE	
APPROPRIATE STANDARD LISTED BELOW:	
FOR AIRCRAFT HANGARS	USE STANDARD ANSI/NFPA 409
FOR PARKING STRUCTURES	USE STANDARD ANSI/NFPA 88A
FOR REPAIR GARAGES	USE STANDARD ANSI/NFPA 88B
INSTALLATION OF THIS UNIT IN AIRCRAFT HANGERS IN ACCORDANCE WITH	
THE REQUIREMENTS OF THE ENFORCING AUTHORITIES AND IN PUBLIC	
GARAGES IN ACCORDANCE WITH THE CAN/CGA-B149 (.1 OR .2) CODES.	
THIS UNIT IS NOT FOR USE WITH FILTERS.	
THIS UNIT MAY BE USED WITH DUCTS.	

Rating Plate Key

A = Date of ANSI standard
A' = Date of CSA standard
B = Model number
C = Month and year of manufacture
D = Voltage, phase, 60 Hertz, maximum total input amps
E = Natural gas or propane
F = Orifice size
G = Manifold pressure (3.5 IN WC natural gas, 10 IN WC propane)
H = Minimum gas supply pressure (5 IN WC natural gas, 11 IN WC propane)
J = BTU normal input sea level
K = Blower motor horsepower
L = BTU thermal output sea level
M = BTU minimum input sea level
N = Top clearance
P = Left side clearance
Q = Temperature rise from (°F)
R = Temperature rise to (°F)
S = Maximum external static pressure (IN WC)
Z = Category

SERIAL NUMBERS

Serial number format changed in June of 2015. Use the following information to decode system serial numbers:

Decoding a System Serial Number for ALL Models BEFORE June 2015

Serial number sample: BLK 79 6E N 00000
Elements key number: 1 | 2 | 3 | 4 | 5

Key:

1 = Date code (refer to [Table 2](#))
2 = Type of ignition system
3 = Type of gas valve
4 = Gas (N = natural, L = propane)
5 = Consecutive number

Decoding a System Serial Number for ALL Models AFTER May 2015

Serial number sample: BOG 3060 00000
Elements key number: 1 | 2 | 3

Key:

1 = Date code (refer to [Table 2](#))
2 = Plant of manufacture (3060 = Mercer, 3062 = Monterrey)
3 = Consecutive number

SERIAL NUMBERS—CONTINUED

Year	Table 2. Serial Number Date Codes (Month and Year)											
	Month											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2002	BBA	BBB	BBC	BBD	BBE	BBF	BBG	BBH	BBI	BBJ	BBK	BBL
2003	BCA	BCB	BCC	BCD	BCE	BCF	BCG	BCH	BCI	BCJ	BCK	BCL
2004	BDA	BDB	BDC	BDD	BDE	BDF	BDG	BDH	BDI	BDJ	BDK	BDL
2005	BEA	BEB	BEC	BED	BEE	BEF	BEG	BEH	BEI	BEJ	BEK	BEL
2006	BFA	BFB	BFC	BFD	BFE	BFF	BFG	BFH	BFI	BFJ	BFK	BFL
2007	BGA	BGB	BGC	BGD	BGE	BGF	BGG	BGH	BGI	BGJ	BGK	BGL
2008	BHA	BHB	BHC	BHD	BHE	BHF	BHG	BHH	BHI	BHJ	BHK	BHL
2009	BIA	BIB	BIC	BID	BIE	BIF	BIG	BIH	BII	BIJ	BIK	BIL
2010	BJA	BJB	BJC	BJD	BJE	BJF	BJG	BJH	BJI	BJJ	BJK	BJL
2011	BKA	BKB	BKC	BKD	BKE	BKF	BKG	BKH	BKI	BKJ	BKK	BKL
2012	BLA	BLB	BLC	BLD	BLE	BLF	BLG	BLH	BLI	BLJ	BLK	BLL
2013	BMA	BMB	BMC	BMD	BME	BMF	BMG	BMH	BMI	BMJ	BMK	BML
2014	BNA	BNB	BNC	BND	BNE	BNF	BNG	BNH	BNI	BNJ	BNK	BNL
2015	BOA	BOB	BOC	BOD	BOE	BOF	BOG	BOH	BOI	BOJ	BOK	BOL
2016	BPA	BPB	BPC	BPD	BPE	BPF	BPG	BPH	BPI	BPJ	BPK	BPL
2017	BQA	BQB	BQC	BQD	BQE	BQF	BQG	BQH	BQI	BQJ	BQK	BQL
2018	BRA	BRB	BRC	BRD	BRE	BRF	BRG	BRH	BRI	BRJ	BRK	BRL
2019	BSA	BSB	BSC	BSD	BSE	BSF	BSG	BSH	BSI	BSJ	BSK	BSL
2020	BTA	BTB	BTC	BTD	BTE	BTF	BTG	BTH	BTI	BTJ	BTK	BTL

ELECTRICAL COMPONENTS

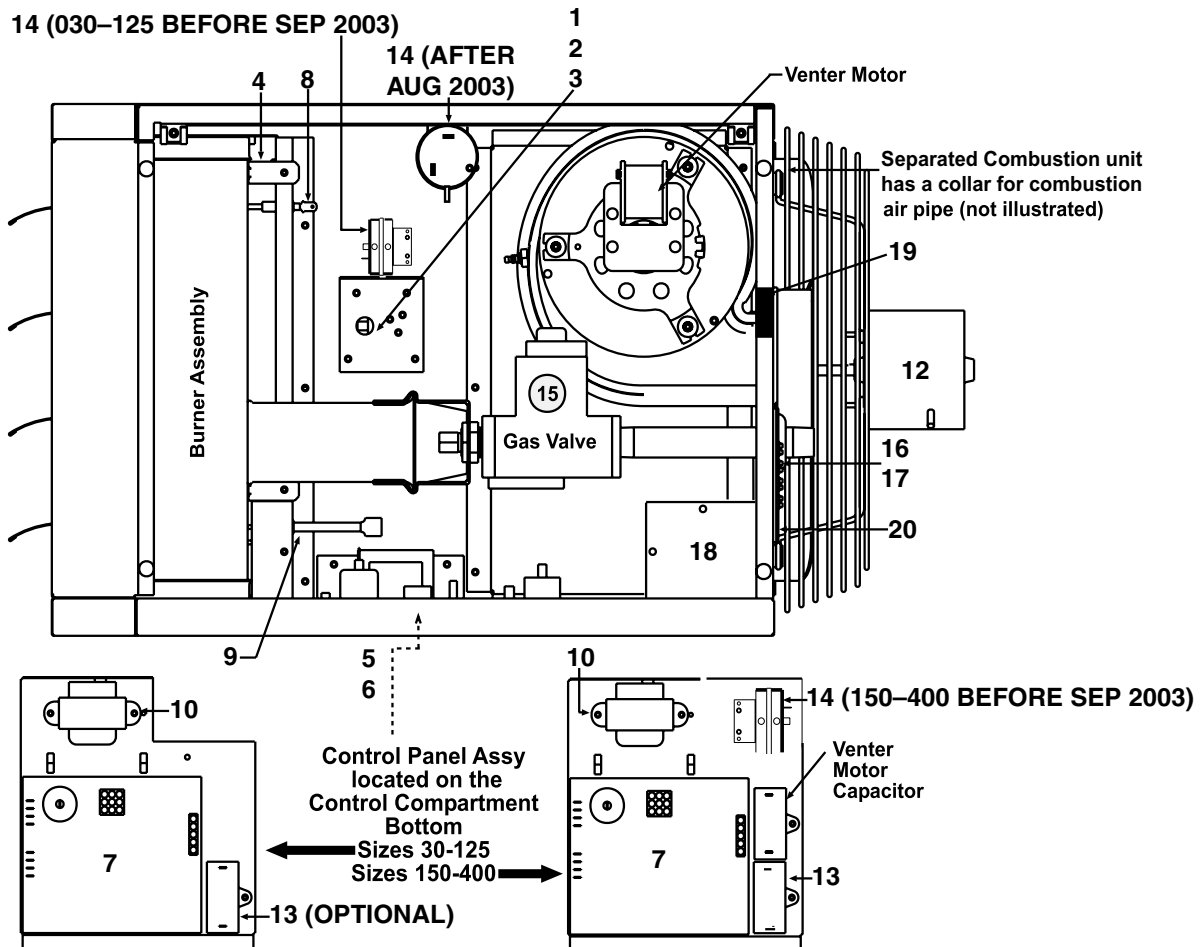


Figure 1. Control Compartment—Models APD, UDAP, and UDAS, Unit Sizes 030–400
 (Refer to [Table 3](#) and [Table 4](#))

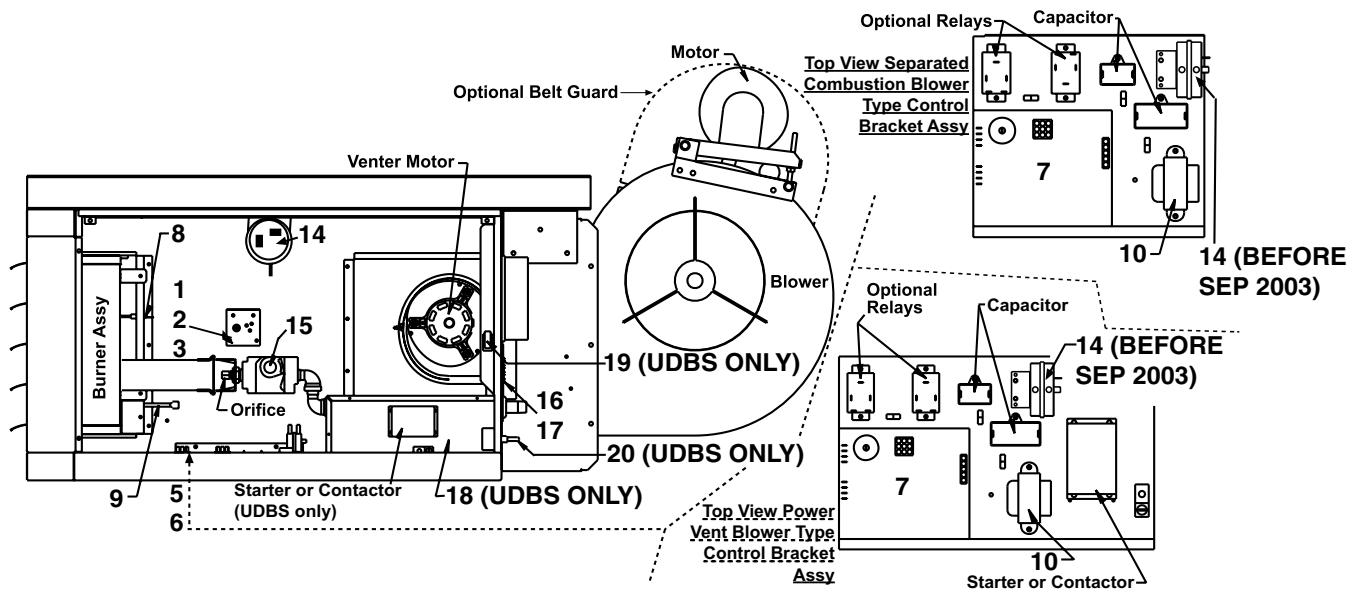


Figure 2. Control Compartment—Models UDBP and UDBS, Unit Sizes 150–400 (Refer to [Table 3](#) and [Table 4](#))

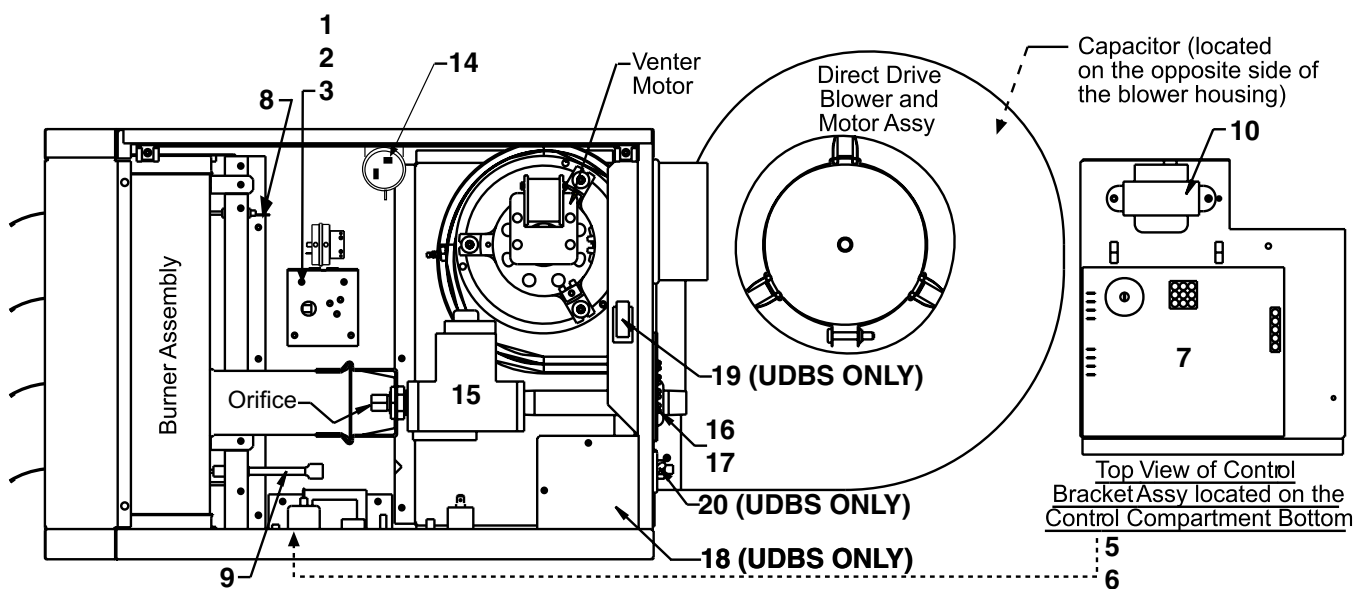


Figure 3. Control Compartment—Models UDBP and UDBS, Unit Sizes 030–125 (Refer to [Table 3](#))

NOTE:

- To connect supply wires and access the disconnect switch (item 20), remove the cover (item 18) from the electrical box.
- On unit sizes 030-125 manufactured before SEP 2003, the pressure switch (item 14) was located on the control compartment wall above the high temperature limit control (item 1). On unit sizes 150-400 manufactured before SEP 2003, the pressure switch was located on the control mounting bracket (item 5) at the bottom high temperature limit control (item 1).

ELECTRICAL COMPONENTS—CONTINUED

Table 3. Electrical Components (Unit Sizes 030–125)									
Item No.	Component	Description	Model	Unit Size					
				030	045	060	075	100	125
1	High temperature limit control, auto reset*	180°F	APD, UDAP, UDAS	—		45602		—	
		200°F, yellow	Low noise: APD-45LN, UDAP-45LN (both with option AL2B)	—	85449	—			
			UDBP, UDBS	—		85449		—	
		220°F, blue	APD, UDAP, UDAS	96512					
		275°F, green	UDBP, UDBS	—	96512	—		96512	—
				201961	—			201961	
2	Plate	Limit control	All	170025					
3	Bracket	Limit control	APD, UDAP, UDAS	170026					
			UDBP, UDBS	201771					
4	Flame rollout switch, manual reset*	210°F/–31°F, violet	APD, UDAP, UDAS	197033	—				
		225°F/–31°F, red		—	196949			—	
		250°F/–31°F, yellow		—			196950		
5	Bracket	Control mounting	All	195551					
6	Gasket	Control mounting bracket		195664					
7	Circuit board	DSI ignition control, UTC 1097-210, serial No. code 79		195265					
7A	Fuse**	Circuit board		201685					
8	Sensor	Flame		195292					
9	Ignitor	Electrode assembly		175272					
10	Transformer	25VA, 115V		APD, UDAP, UDAS	175265				
		40 VA, 115V	APD, UDAP, UDAS	194808					
		40 VA, 208–230V/1PH	(each with option CL31)	194536					
11	Stepdown transformer		Refer to Table 4						
12	Fan motor (for spacing, refer to Table 5)	115V, open	APD, UDAP, UDAS	196240	196241		196242	196243	196244
		208/230V, open***		196826			195302		
		115V, TEFC	APD, UDAP, UDAS (each with option AL14)	203310					203724
		115V	Low noise: APD-45LN, UDAP-45LN (both with option AL2B)	—	203030	—			
13	Capacitor, fan motor		Refer to Table 4						

*Color listed is the color of the identifying dot on the label.

**May be replaced with field-supplied type ATC or ATO 3-amp fuse (color code: violet).

***When inventory of the 208/230V fan motors is depleted, they will no longer be available as replacement parts. A replacement 115V motor and the installation of stepdown transformer kit option CG1 or CG2 (refer to [Table 7](#)) will be required. Check with your Distributor for availability.

Table 3. Electrical Components (Unit Sizes 030–125)—Continued

Item No.	Component	Description	Model	Unit Size					
				030	045	060	075	100	125
				PN					
14	Pressure switch, 0–6000 feet, H/W #IS2 (for elevations above 6000 feet, refer to Table 23)*	0.4 IN WC, green	APD, UDAP	197030		—		197030	
			UDBP	197030		—		197030	
			UDBS	197030	—		197030	—	
		0.45 IN WC, pink	UDAS, UDBS	—				197032	
			APD, UDAP	—				196388	—
		0.5 IN WC, orange	APD-CV, UDAP-CV (both with option AV6)	—	196388	—			
			UDBP	—		196388		—	
			UDBS	—	196388	—	196388	—	
		0.55 IN WC, white	APD-CV, UDAP-CV (both with option AV6)	—			196362	—	
		0.6 IN WC, light blue		—	197029		—		
0.65 IN WC, yellow	UDBS	—	197029	—					
	APD-CV, UDAP-CV (both with option AV6)	197028	—				—		
		UDAS	197028			—			
15	Gas valve (refer to Serial Numbers and to Table 6 for codes in parentheses)	One-stage, natural gas, 1/2 × 1/2 (MH VR8215T1239)	All	260603 (6E)					
		One-stage, propane, 1/2 × 1/2 (MH VR8215T5214)		263999 (9E)					
		Two-stage, natural gas, 1/2 × 1/2 (MH VR8205N2921)		—	197066 (Y8 or 4A)				
		Two-stage, propane, 1/2 × 1/2 (MH VR8205N2913)		—	197064 (Y6 or 2A)				
16	Terminal board	24V, 4-pole	UDAS, UDBS	196813					
17	Gasket	Terminal board		196327					
18	Cover	Electrical box		201945					
19	Door switch	Interlock (Carling PN TA22B-TLB-B)		217262					
20	Disconnect switch	For units manufactured after SEP 2006		101902					
		For units manufactured before OCT 2006		201946					
21	Wiring harness (not shown)	9-pin terminal		APD, UDAP, UDAS	197148	197199	197149		
		5-pin terminal		UDBP, UDBS	203523	203524	203525		
22				All	195653				

*Color listed is the color of the identifying dot on the label.

**May be replaced with field-supplied type ATC or ATO 3-amp fuse (color code: violet).

***When inventory of the 208/230V fan motors is depleted, they will no longer be available as replacement parts. A replacement 115V motor and the installation of stepdown transformer kit option CG1 or CG2 (refer to [Table 7](#)) will be required. Check with your Distributor for availability.

ELECTRICAL COMPONENTS—CONTINUED

Table 4. Electrical Components (Unit Sizes 150–400)

Item No.	Component	Description	Model	Unit Size							
				150	175	200	225	250	300	350	400
				PN							
1	High temperature limit control, auto reset*	160°F, red	APD, UDAP, UDAS	—	82091	—	82091	—			
		180°F		45602	—	45602	—	45602	—	45602	
		200°F, yellow	APD, UDAP, UDAS	—			85449	—			
		240°F, silver	UDBP, UDBS	—			—		85449		
		250°F, orange		—	202048	—		202048	—		
				—			201962	—			
2	Plate	Limit control	All	170025							
3	Bracket	Limit control	APD, UDAP, UDAS	170026							
			UDBP, UDBS	201771			202701				
4	Flame rollout switch		Refer to Table 3								
5	Bracket	Control mounting	APD, UDAP, UDAS	195294							
			UDBP	202736							
			UDBS	195294							
6	Gasket	Control mounting bracket	All	195669							
7	Circuit board	DSI ignition control, UTC 1097-210, serial No. code 79		195265							
7A	Fuse**	Circuit board		201685							
8	Sensor	Flame		195292							
9	Ignitor	Electrode assembly		175272							
10	Transformer	25VA, 115V	APD, UDAP, UDAS	175265							
		40 VA, 115V	APD, UDAP, UDAS (each with option CL31)	194808							
		40 VA, 208–230V/1PH	All	194536							
		40 VA, 208–230V/3PH	UDBP, UDBS	194536							
		25VA, 115V	APD, UDAP, UDAS (each with options D10 & D14)	175265							
		40VA, 115V		194808							
		40 VA, 208V–230V/1PH		194536 (quantity = 2)							
11	Stepdown transformer (not located in control compartment—hangs on outside of heater cabinet)	480V supply 120V, 1/2 kVA	UDBP, UDBS	11100							
		575V supply 120V		202056							
12	Fan motor (for spacing, refer to Table 5)	115V, open	APD, UDAP, UDAS	196245	271461 (units manufactured after 19 SEP 2013)		196247				
		115V, TEFC	APD, UDAP, UDAS (each with option AL14)	196824			196825 (must be Fasco REV D)				
		208/230V, open***	APD, UDAP, UDAS	195302			195303				

*Color listed is the color of the identifying dot on the label.

**May be replaced with field-supplied type ATC or ATO 3-amp fuse (color code: violet).

***When inventory of the 208/230V fan motors is depleted, they will no longer be available as replacement parts. A replacement 115V motor and the installation of stepdown transformer kit option CG1 or CG2 (refer to [Table 7](#)) will be required. Check with your Distributor for availability.

Table 4. Electrical Components (Unit Sizes 150–400)—Continued

Item No.	Component	Description	Model	Unit Size							
				150	175	200	225	250	300	350	400
				PN							
13	Capacitor, fan motor	115V & 208/230V, 7.5µF	All	195643							
		115V, 7.5µF	All	195643				—			
		115V, 15µF	(each with option AL14)	—				217031			
14	Pressure switch, 0–6000 feet, H/W #IS2 (for elevations above 6000 feet, refer to Table 23)*	0.4 IN WC, green	All	197030	—						
		1.1 IN WC, blue		—	201158				201158, for units manufactured after 22 JUL 2009		
		1.4 IN WC, red		—				201159, for units manufactured before 23 JUL 2009			
15	Gas valve (refer to Serial Numbers and to Table 6 for codes in parentheses)	One-stage, natural gas, 1/2 × 1/2 (MH VR8215T1239)	All	260603 (6E, replacement for serial number code Y2, Z7, X7, or Z3)		—					
		One-stage, natural gas, 3/4 × 3/4 (MH VR8305K4241)		—	196981 (Y3 or Z8)						
		One-stage, propane, 1/2 × 1/2 (MH VR8215T5214)		263999 (9E, replacement for serial number code Y4, Z9, X9, or Z5)		—					
		One-stage, propane, 3/4 × 3/4 (MH VR8305K4258)		—	196983 (Y5 or 1A)						
		Two-stage, natural gas, 1/2 × 1/2 (MH VR8205N2921)		197066 (Y8 or 4A, replacement for serial number code X8 or Z4)		—					
		Two-stage, natural gas, 3/4 × 3/4 (MH VR8305N4297)		—	197067 (Y9 or 5A)						
		Two-stage, propane, 1/2 × 1/2 (MH VR8205N2913)		197064 (Y6 or 2A, replacement for serial number code Y1 or Z6)		—					
		Two-stage, propane, 3/4 × 3/4 (MH VR8305N4289)		—	197065 (Y7 or 3A)						
16	Terminal board	24V, 4-pole	UDAS, UDBS	196813							
17	Gasket	Terminal board		196327							
18	Cover	Electrical box		201945							
19	Door switch	Interlock (Carling PN TA22B-TLB-B)		217262							
20	Disconnect switch			101902 (replaced 202054)							
21	Wiring harness (not shown)	9-pin terminal		APD, UDAP, UDAS	201417		201418		201419		
			UDBP, UDBS	203526		203527		203528			
22		5-pin terminal	All	195656							

*Color listed is the color of the identifying dot on the label.

**May be replaced with field-supplied type ATC or ATO 3-amp fuse (color code: violet).

***When inventory of the 208/230V fan motors is depleted, they will no longer be available as replacement parts. A replacement 115V motor and the installation of stepdown transformer kit option CG1 or CG2 (refer to [Table 7](#)) will be required. Check with your Distributor for availability.

ELECTRICAL COMPONENTS—CONTINUED


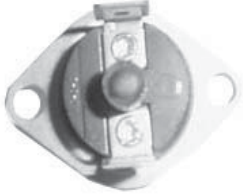

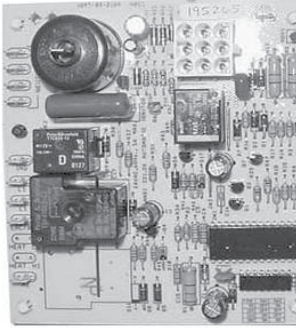





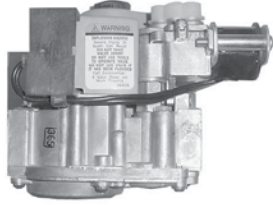




<p>Item 1: High Temperature Limit Control, Auto Reset</p> <p>Item 2: Bracket</p> <p>Item 3: Plate</p>		<p>Item 4: Flame Rollout Switch, Manual Reset</p>	
<p>Item 7: Circuit Board</p>	<p>Item 8: Flame Sensor</p>	<p>Item 10: Transformer</p>	
	<p>Item 9: Ignitor</p>	<p>Item 11: Stepdown Transformer</p>	
<p>Item 12: Fan Motor</p>		<p>Item 13: Fan Motor Capacitor</p>	
<p>Item 14: Pressure Switch</p>	<p>Item 15: Gas Valve</p> <div style="display: flex; justify-content: space-around; align-items: center;">    </div> <p style="text-align: center;">Single-Stage Two-Stage</p>		
<p>Item 16: Terminal Board</p>	<p>Item 19: Interlock Door Switch</p>	<p>Item 20: Disconnect Switch</p>	  

Figure 4. Individual Electrical Components (See Locations in [Figure 1](#), [Figure 2](#), and [Figure 3](#))

Table 5. Fan Blade/Motor Spacing and Fan Guard Type

Unit Size	Wire Fan Guard Type		Setscrew Torque (inch-pounds ±10)
	Standard Guard (0.5-Inch (13-mm) Spacing)	Option AZ8 Guard (0.334-Inch (8.5-mm) Spacing)	
	A = Fan Spacing (Inches (mm))*		
030	1 (25)		80
045	9/16 (14)	1-1/16 (27)	
045-LN	3/4 (19)	—	
060	1-1/2 (38)	1-3/4 (44)	
075	2-1/8 (54)	1-1/2 (38)	
100	2-3/8 (60)		120
125	2-5/16 (59)	2-1/8 (54)	
150	2-3/8 (60)	—	130
175	2-1/8 (54)		
200	1-5/8 (41)		
225, 250, & 300	2 (51)		
350	1-7/8 (48)		
400	1-3/8 (35)		

*See [Figure 5](#).

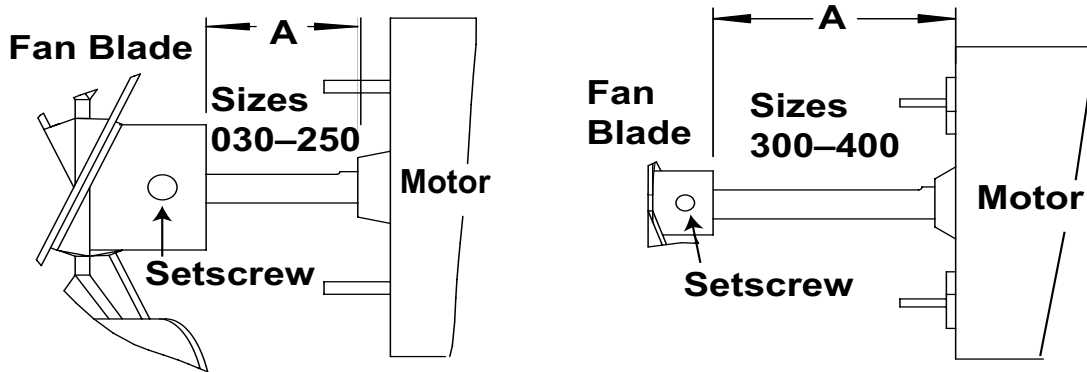


Figure 5. Fan Spacing

Table 6. Gas Valve Serial Numbers

PN	Serial Number Code	Replacement for Serial Number Code
196981	Y3 or Z8	
196983	Y5 or 1A	
197064	Y6 or 2A	Y1 or Z6
197065	Y7 or 3A	
197066	Y8 or 4A	X8 or Z4
197067	Y9 or 5A	
260603	6E	Y2, Z7, X7, or Z3
263999	9E	Y4, Z9, X9, or Z5

NOTE: Refer to [Serial Numbers](#) for code definitions.

ELECTRICAL COMPONENTS—CONTINUED

Table 7. Stepdown Transformer Kit Components (Same as Option CG1, CG2, or CG4)											
Component	Model*	Option**	Unit Size								
			030	045	060, 075	100	125	150, 175, 200	225, 250	300, 350, 400	
			PN								
Stepdown transformer kit package	A	CG1	260919	260920			260921		260922	260923	
		CG2, CG4	197150	197151			197152		197153	197154	
	B	CG1	260924		260925	260926		—			
		CG2, CG4	202976		202977	202978		—			
Transformer, 0.25kVA	A	CG1	260927	—							
		CG2, CG4	11279	—							
Transformer, 0.5kVA	A	CG1	—	260928			—				
		CG2, CG4	—	11100			—				
	B	CG1	260928		—						
		CG2, CG4	11100		—						
Transformer, 0.75kVA	A	CG1	—			260929		—			
		CG2, CG4	—			11217		—			
Transformer, 1kVA	A	CG1	—						223462	—	
		CG2, CG4	—						16065	—	
	B	CG1	—		223462	—					
		CG2, CG4	—		16065	—					
Transformer, 1.5kVA	A	CG1	—							260930	
		CG2, CG4	—							197085	
Transformer, 2kVA	B	CG1	—			260931		—			
		CG2, CG4	—			202979		—			
Common Parts											
Bracket, transformer	A	All	197079						197080		
	B		197079						—		
Gasket, transformer bracket	A		236155								
	B		236155						—		
Capscrew, hex head, 3/8 x 1 long	A		32253								
Lockwasher, 3/8			5197								
Flat washer, 3/8			6593								
BX cable, 3/8	A		45097 (38" long)	174394 (46" long)			63292 (49" long)		10460 (56" long)	201465 (70" long)	
	B		45097 (38" long)		174394 (46" long)	63292 (49" long)		—			
Black wire, 14-gauge, 105°C	A		32520 (54" long)	7208 (62" long)			123150 (65" long)		48862 (72" long)	201466 (86" long)	
	B		32520 (54" long)		7208 (62" long)	123150 (65" long)		—			
White wire, 14-gauge, 105°C	A		201243 (54" long)	201242 (62" long)			123152 (65" long)		48861 (72" long)	201467 (86" long)	
	B		201243 (54" long)		201242 (62" long)	123152 (65" long)		—			
Green wire 14-gauge, 105°C	A		201241 (54" long)	201240 (62" long)			201468 (65" long)		201462 (72" long)	201469 (86" long)	
	B		201241 (54" long)		201240 (62" long)	201468 (65" long)		—			
Bushing, anti-short	A		16358 (quantity = 2)								
	B		16358 (quantity = 2)						—		
Connector, straight	A		16199								
	B		16202 (T&B #302)						—		
Connector, 90-degree	A	1417 (T&B #XC-290)									
	B	1417 (T&B #XC-290)						—			
Cable clamp, 1/2	A	16227 (Heyco #3328)									
	B	16227 (Heyco #3328)						—			
Screw, sheet metal, #10 x 1/2	A	11813 (quantity = 3)									
	B	11813 (quantity = 3)						—			
Wire connector, 73B	A	16354 (Ideal #3-0253, quantity = 10)									
	B	16354 (Ideal #3-0253, quantity = 10)						—			
*A = models APD, UDAP, and UDAS. B = models UDBP and UDBS.											
**Option CG1 is for 208V supply 120V, option CG2 is for 230V supply 120V, and option CG4 is for 460V supply 120V.											

BLOWER COMPONENTS

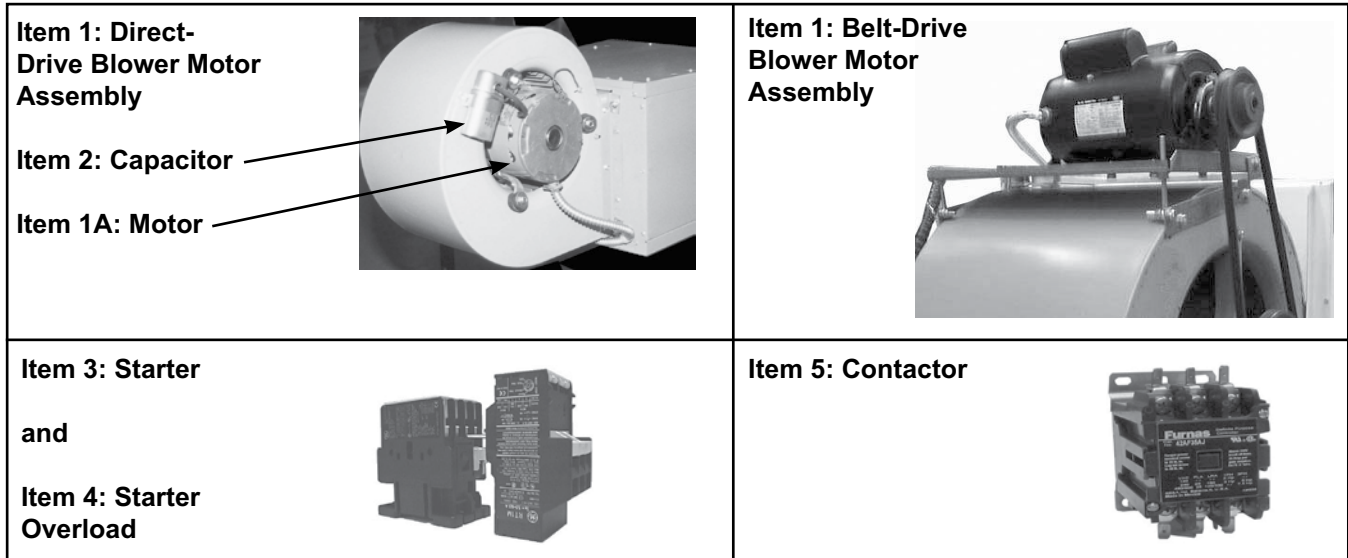


Figure 6. Individual Blower Components (Refer to [Table 8](#), [Table 9](#), and [Table 10](#))

Table 8. Direct-Drive Blower Motor Assembly Components (Unit Sizes 030–125)								
Item No.	Component	Description	Unit Size					
			030	045	060	075	100	125
			PN					
1	Motor assembly	Direct-drive	202731		202732		202733	
1A	Motor	1/6-HP	201760		—		—	
		1/3-HP	—		201761		—	
		3/4-HP	—		—		201762	
1B	Motor band		51221					
1C	Support arm		51223 (quantity = 3)			220629 (quantity = 3)		
1D	Capscrew, hex head	1/4-20 × 1-1/2 long	51231					
1E	Nut, keps	1/4-20	7328					
1F	BX cable	3/8 × 30 long	2889			—		
		3/8 × 43 long	—			174387		
1G	Bushing	Anti-short	(2) 16358					
2	Capacitor	370V, 5µF	101917		—			
		370V, 7.5µF	—		101918		15MFD	
		370V, 15µF	—		201763			
2A	End cap	Capacitor	82113					
2B	Bracket	Capacitor strap	82114					

NOTE: Motors that don't list a contactor in [Table 9](#) or [Table 10](#) require a starter. If a contactor is listed, the starter is optional.

BLOWER COMPONENTS—CONTINUED

Table 9. Open-Type Belt-Drive Blower Motor Assembly (Unit Sizes 150–400)																		
		Item 1A: Motor				Item 3: Starter				Item 4: Starter Overload				Item 5: Contactor				
HP	Full Load Amps (FLA)	Manufacturer's Model	Frame Size	Shaft Size (Inches)	Service Factor	Power Factor	Efficiency	Voltage/Phase	PN	GE Model	PN	Min Amps	Max Amps	GE Model	PN	GE Model	PN	
1/4	4.6	BF2024	48/56	1/2	1.35	63	59.0%	120/1	210611	CL00A310T-J	151146	4.00	6.30	RTA1-L	151191	42AF35AF	119626	
	2.3							208/1		CL00A310T-L	151150	1.80	2.70	RTA1-J	151189	42AF35AG	119627	
	1.1	M3003	K48		240/1	1.35	72	74.0%	208/3	115864	CL00A310T-L	151150	1.00	1.50	RTA1-G	151187	—	—
	1.4				240/3				115864	CL00A310T-S	151147	0.65	1.10	RTA1-F	151186			
	0.75				480/3				115864	CL00A310T-J	151146	4.00	6.30	RTA1-L	151191			
1/3	6.0	BF2034	48/56	1/2	1.35	—	—	120/1	202091	CL00A310T-L	151150	2.50	4.10	RTA1-K	151190	42AF35AG	119627	
	3.0							208/1		202091	CL00A310T-S	151147	1.80	2.70	RTA1-J	151189		
	1.4	M3007	K48		240/1	1.15	—	—	208/3	115863	CL00A310T-L	151150	1.30	1.90	RTA1-H	151188	—	—
	1.6				240/3				115863	CL00A310T-S	151147	0.65	1.10	RTA1-F	151186			
	0.8				480/3				115863	CL00A310T-J	151146	8.00	12.00	RTA1-N	151193			
1/2	8.8	BF2054	56Z	5/8	1.15	—	—	120/1	102627	CL00A310T-L	151150	4.00	6.30	RTA1-L	151191	42AF35AG	119627	
	5.1							208/1		102627	CL00A310T-S	151147	1.80	2.70	RTA1-J	151189		
	4.4	H880	LA56		240/1	1.25	—	—	208/3	159183	CL00A310T-L	151150	2.50	4.10	RTA1-K	151190	—	—
	2.5				240/3				159183	CL00A310T-S	151147	1.30	1.90	RTA1-H	151188			
	3.0				480/3				159183	CL00A310T-J	151146	0.65	1.10	RTA1-F	151186			
3/4	1.5	H991	H56	5/8	1.25	—	—	575/3	202089	CL00A310T-L	151150	10.00	16.00	RTA1-P	151194	42AF35AF	119626	
	0.9							208/1		202089	CL00A310T-S	151147	4.00	6.30	RTA1-L	151191		
	11.0	AOS-C426V1	B56		240/1	1.25	—	—	120/1	93548	CL01A310T-J	151151	2.50	4.10	RTA1-K	151190	42AF35AG	119627
	5.5				208/1				93548		CL00A310T-L	151150	1.00	1.50	RTA1-G	151187		
	5.4				240/1				93548		CL00A310T-S	151147	0.65	1.10	RTA1-F	151186		
1	2.9	312P696	D56	5/8	1.25	—	—	208/3	36951	CL00A310T-L	151150	5.50	8.50	RTA1-M	151192	42AF35AG	119627	
	2.6							240/3		36951	CL00A310T-S	151147	2.50	4.10	RTA1-K	151190		
	1.3	H992	H56		480/3	1.25	—	—	575/3	202090	CL00A310T-L	151146	10.00	16.00	RTA1-P	151194	42AF35AF	119626
	1.0				208/1				202090		CL00A310T-S	151147	5.50	8.50	RTA1-M	151192		
	13.0				240/1				202090		CL01A310T-J	151151	2.50	4.10	RTA1-K	151190		
1	7.5	C523	H56	5/8	1.25	—	—	120/1	13685	CL00A310T-L	151150	2.50	4.10	RTA1-K	151190	42AF35AG	119627	
	6.5							208/1		13685	CL00A310T-S	151147	1.80	2.70	RTA1-J	151189		
	3.4	AOS-H882L	56H		240/1	1.15	—	—	208/3	36580	CL00A310T-L	151150	1.00	1.50	RTA1-G	151187	42AF35AF	119626
	3.7				240/3				36580		CL00A310T-S	151147	0.65	1.10	RTA1-F	151186		
2.0	AOS-H959	JA56	480/3		1.15	—	—	575/3	158175	CL00A310T-L	151146	1.00	1.50	RTA1-G	151187	42AF35AF	119626	
1.4			575/3	158175				CL00A310T-J		151146	1.00	1.50	RTA1-G	151187				

Table 9. Open-Type Belt-Drive Blower Motor Assembly (Unit Sizes 150-400)—Continued																	
Item 1A: Motor																	
HP	Full Load Amps (FLA)	Manufacturer's Model	Frame Size	Shaft Size (Inches)	Service Factor	Power Factor	Efficiency	Voltage/Phase	PN	Item 3: Starter			Item 4: Starter Overload			Item 5: Contactor	
										GE Model	PN	Min Amps	Max Amps	GE Model	PN	GE Model	PN
1.5	15.0	C621	56	5/8	1.2	86.4	77.2%	120/1	194202	CL02A310T-J	151156	10.00	16.00	RTA1-P	151194	42AF35AF	119626
	7.8							208/1		CL00A310T-L	151150	5.50	8.50	RTA1-M	151192	42AF35AG	119627
	7.5							240/1		CL00A310T-S	151147	4.00	6.30	RTA1-L	151191		
	5.6	AOS-H884L	UA56	1.15	66.4	78.6%	208/3	115859	CL00A310T-L	151150	2.50	4.10	RTA1-K	151190	42AF35AF	119626	
	5.0						240/3		CL00A310T-S	151147	1.80	2.70	RTA1-J	151189	—	—	
	2.8						480/3		CL00A310T-J	151146	21.00	26.00	RTA1-U	151197	42AF35AF	119626	
2.0	AOS-H960	LA56H	7/8	1	85.3	84.0%	575/3	158162	CL04A310M-J	151165	10.00	16.00	RTA1-P	151194	42AF35AG	119627	
24.6	AOS-RB1204AV1	56H	5/8	1.15	67	79.0%	120/1	202581	CL01A310T-L	151155	2.50	4.10	RTA1-K	151190			
12.3							208/1		CL01A310T-S	151152	1.80	2.70	RTA1-J	151189			
2	7.0	AOS-H886	56HZ	7/8	86	84.0%	208/3	159327	CL00A310T-L	151150	5.50	8.50	RTA1-M	151192			
3	6.6	AOS-H965V1	L56	5/8	1.15	86	84.0%	240/3	158176	CL00A310T-S	151147	2.50	4.10	RTA1-K	151190	42AF35AF	119626
	3.5							480/3		CL00A310T-J	151146	1.80	2.70	RTA1-J	151189	—	—
	2.6							575/3		CL00A310T-L	151150	10.00	16.00	RTA1-P	151194		
	13.7	AOS-B735	L56	5/8	1.15	94.5	80.3%	208/1	111560	CL02A310T-L	151159	8.00	12.00	RTA1-N	151193	42AF35AG	119627
	12.4							240/1		CL01A310T-S	151152	4.00	6.30	RTA1-L	151191	42AF35AF	119626
	9.0							208/3		CL00A310T-L	151150	2.50	4.10	RTA1-K	151190	—	—
8.6	AOS-H845	P56Z	7/8	1.15	80.3	83.8%	240/3	159185	CL00A310T-S	151147	10.00	16.00	RTA1-P	151194			
4.3							480/3		CL00A310T-J	151146	5.50	8.50	RTA1-M	151192			
3.6							575/3		CL00A310T-L	151150	4.00	6.30	RTA1-L	151191	42AF35AF	119626	
5	13.4	AOS-H954	N56Z	7/8	1.15	87.2	85.0%	208/3	120019	CL00A310T-J	151146	2.50	4.10	RTA1-K	151190	—	—
13.2	575/3							CL01A310T-L		151155	10.00	16.00	RTA1-P	151194			
6.6	480/3							CL01A310T-S		151152	5.50	8.50	RTA1-M	151192			
5.4	AOS-H956	LA56H	7/8	1	85.9	85.3%	575/3	120020	CL00A310T-J	151146	4.00	6.30	RTA1-L	151191			

BLOWER COMPONENTS—CONTINUED

Table 10. TEFC-Type Belt-Drive Blower Motor Assembly Components (Unit Sizes 150–400)

HP	Full Load Amps (FLA)	Manufacturer's Model	Frame Size	Shaft Size (Inches)	Service Factor	Power Factor	Efficiency	Voltage/Phase	PN	Item 3: Starter			Item 4: Starter Overload			Item 5: Contactor	
										GE Model	PN	Min Amps	Max Amps	GE Model	PN	GE Model	PN
1/4	3.8	Regal Beloit C664	H56	5/8	1	—	—	120/1	16074*	CL00A310T-J	151146	2.50	2.50	RTA1-K	151190	42AF35AF	119626
	2.0				208/1			CL00A310T-L		151150	1.90	2.70	RTA1-J	151189			
	1.9				240/1			CL00A310T-S		151147	1.00	1.90	RTA1-G	151187	42AF35AG	119627	
1/3	1.1	USMTR T14S2A	56	1/2	1	61.9	72.1%	208/3	271443**	CL00A310T-L	151150	0.40	0.65	RTA1-D	151184	42AF35AF	119626
	0.5				240/3	CL00A310T-S	151147	4.00		6.30	RTA1-L	151191					
	4.6				480/3	CL00A310T-J	151146	1.80		2.70	RTA1-J	151189	42AF35AG	119627			
1/2	2.3	AOS-906L	N48	1/2	1	67.2	69.5%	208/1	105567	CL00A310T-L	151150	0.40	0.65	RTA1-D	151184	42AF35AF	119626
	2.4				240/1	CL00A310T-S	151147	5.50		8.50	RTA1-M	151192					
	1.2				208/3	CL00A310T-L	151150	2.50		4.10	RTA1-K	151190	42AF35AG	119627			
3/4	0.6	AOS-H261	L48	5/8	1.15	—	79.5%	480/3	16077	CL00A310T-J	151146	0.65	1.10	RTA1-F	151186	42AF35AF	119626
	7.2				120/1	CL00A310T-L	151146	10.00		16.00	RTA1-P	151194	42AF35AF	119626			
	3.5				208/1	CL00A310T-L	151150	4.00		6.30	RTA1-L	151191					
1	3.6	AOS-C613	J56	5/8	1.15	—	—	240/1	105568	CL00A310T-S	151147	1.80	2.70	RTA1-J	151189	42AF35AG	119627
	2.3				208/3	CL00A310T-L	151150	0.65		1.10	RTA1-F	151186	—	—			
	2.0				240/3	CL00A310T-S	151147	1.80		2.70	RTA1-J	151189	42AF35AG	119627			
1	1.0	AOS-H274	H56	5/8	1	59.5	74.8%	480/3	105568	CL00A310T-L	151146	10.00	16.00	RTA1-P	151194	42AF35AF	119626
	0.7				575/3	CL00A310T-J	151146	0.65		1.10	RTA1-F	151186	—	—			
	11.0				120/1	CL01A310T-J	151151	4.00		6.30	RTA1-L	151191	42AF35AG	119627			
1	5.4	AOS-F353	F56	5/8	1	66	65.7%	208/1	115860	CL00A310T-L	151150	1.80	2.70	RTA1-J	151189	42AF35AG	119627
	5.5				240/1	CL00A310T-S	151147	1.00		1.50	RTA1-G	151187	42AF35AF	119626			
	2.0				208/3	CL00A310T-L	151150	0.65		1.10	RTA1-F	151186	—	—			
1	2.2	AOS-H580	KA56	5/8	1	73.5	81.1%	240/3	20371	CL00A310T-S	151147	10.00	16.00	RTA1-P	151194	42AF35AF	119626
	1.1				480/3	CL00A310T-L	151146	5.50		8.50	RTA1-M	151192					
	0.8				575/3	CL00A310T-J	151146	2.50		4.10	RTA1-K	151190	42AF35AG	119627			
1	6.2	AOS-H461	L56	5/8	1.15	78.3	82.0%	208/3	105569	CL00A310T-L	151150	10.00	16.00	RTA1-P	151194	42AF35AF	119626
	6.0				240/1	CL01A310T-J	151151	0.65		1.10	RTA1-F	151186	—	—			
	3.3				208/1	CL00A310T-L	151150	5.50		8.50	RTA1-M	151192					
1	3.1	WEG-00118E	D56	5/8	1	74.4	80.2%	240/3	271444**	CL00A310T-S	151147	2.50	4.10	RTA1-K	151190	42AF35AG	119627
	1.6				480/3	CL00A310T-L	151150	1.30		1.90	RTA1-H	151188	42AF35AF	119626			
	1.4				575/3	CL00A310T-J	151146	1.00		1.50	RTA1-G	151187	—	—			

*Replacement motor for USMTR T14CA2J19; both have a shaft size of 5/8 (original AOS motor shaft size was 1/2). Replacement overload for USMTR T14CA2J19 motor is now PN 151192.

**Requires a starter. Consult the factory for a wiring diagram or serial number to determine the appropriate starter and overload.

Table 10. TEFC-Type Belt-Drive Blower Motor Assembly Components (Unit Sizes 150-400)—Continued																					
		Item 1A: Motor						Item 3: Starter			Item 4: Starter Overload			Item 5: Contactor							
HP	Full Load Amps (FLA)	Manufacturer's Model	Frame Size	Shaft Size (Inches)	Service Factor	Power Factor	Efficiency	Voltage/Phase	PN	GE Model	PN	Min Amps	Max Amps	GE Model	PN	GE Model	PN				
1.5	16.4	AOS-C686	TK56H	5/8	1	—	82.4%	120/1	94347	CL02A310T-J	151156	14.50	18.00	RTA1-S	151196	42AF35AF	119626				
	9.5							208/1		CL00A310T-L	151150	8.00	12.00	RTA1-N	151193						
	8.2							240/1		CL00A310T-S	151147										
	4.3	WEG-00158E	D56					208/3	80.9	82.4%	240/3	CL00A310T-L	151150	4.00	6.30	RTA1-L	151191	42AF35AG	119627		
	4.4							480/3			CL00A310T-S	151147	1.80	2.70	RTA1-J	151189	42AF35AF	119626			
	2.2							575/3			CL00A310T-J	151146	1.30	1.90	RTA1-H	151188					
1.7	AOS-T59027	145T	7/8	1.15	85.7	84.0%	240/1	105665	CL00A310T-J	151147	5.50	8.50	RTA1-M	151192							
8.3	L3516M	56HZ			99	78.0%	208/3	205881	CL00A310T-I	151147											
7.6									CL00A310T-L	151150											
2	5.6	WEST-NP0024	145T	7/8	1.15	77.5	84.0%	240/3	158165	CL00A310T-S	151147	4.00	6.30	RTA1-L	151191						
	2.8							480/3		CL00A310T-S	151146	2.50	4.10	RTA1-K	151190						
	2.2	AOS-T59028						575/3	158166	1.80	2.70	RTA1-J	151189								
	7.7							208/3					CL00A310T-L	151150	5.50	8.50	RTA1-M	151192			
3	7.0	M3559T	145T	7/8	85.5	85.5%	240/3	240/3	159330	CL00A310T-S	151147										
	3.5							480/3		CL00A310T-S	151147										
	2.8	B-EM3559T-5						575/3	111571	2.50	4.10	RTA1-K	151190								

*Replacement motor for USMTR T14CA2J19: both have a shaft size of 5/8 (original AOS motor shaft size was 1/2). Replacement overload for USMTR T14CA2J19 motor is now PN 151192.

**Requires a starter. Consult the factory for a wiring diagram or serial number to determine the appropriate starter and overload.

BLOWER COMPONENTS—CONTINUED

Table 11. Drives, Pulleys, and Belts for Open-Type Motors

HP	Motor Option	Voltage Option	Drive (AM/EM) Option	Motor Pulley			Blower Pulley*		Belt**		
				PN	Model	Bore Size (Inches)	PN	Model	PN (Length (Feet))		
1/4, 1/3	AL2, AL3	AK1, AK2, AK3, AK5, AK6, AK7	1, 2	4074	1VL34	1/2	111609	AK 99	201809 (3.8)		
			3, 4	13491	1VL40						
			5, 6, 7								
			8, 9, 10, 11, 12								
			13, 14, 15, 16, 17								
1/2, 3/4, 1, 1-1/2	AL4, AL5, AL6, AL7	AK1, AK2, AK3, AK5, AK6, AK7, AK8	1, 2	13580	1VL34	5/8	111609	AK 99			
			3, 4	7962	1VL40						
			5, 6, 7								
			8, 9, 10, 11, 12								
			13, 14, 15, 16, 17								
			18, 19, 20, 21, 22, 23,24, 25	105476	1VL44						
26, 27, 28, 29											
2	AL8	AK1, AK2, AK3, AK8	1, 2	13580	1VL34	5/8	111609	AK 99			
			3, 4	7962	1VL40						
			5, 6, 7								
			8, 9, 10, 11, 12								
			13, 14, 15, 16, 17								
			18, 19, 20, 21, 22, 23,24, 25	105476	1VL44						
26, 27, 28, 29, 30											
3	AL9	AK2, AK3	9, 10, 11, 12	7962	1VL40	7/8	111609	AK 99			
			13, 14, 15, 16, 17, 18, 19								
			20, 21, 22, 23, 24, 25, 26								
2	AL8	AK5, AK6, AK7	1, 2	110125	1VP34				7/8	111609	AK 99
			3, 4	106748	1VL40						
			5, 6, 7								
			8, 9, 10, 11, 12								
			13, 14, 15, 16, 17								
			18, 19, 20, 21, 22, 23,24, 25	106758	1VL44						
26, 27, 28, 29, 30											
3, 5	AL9, AL10	AK5, AK6, AK7, AK8	9, 10, 11, 12	106748	1VL40	7/8	101414	BK130			
			13, 14, 15, 16, 17								
			18, 19, 20, 21, 22	37451	1VM50						
			23, 24, 25, 26, 27, 28, 29								
30, 31, 32, 33, 34, 35, 36											
5	AL10	AK2, AK3	9, 10, 11, 12	7963	2VP42	1-1/8	30621	2AK124			
			13, 14, 15, 16, 17	111681	1VP50						
			18, 19, 20, 21, 22	161444	1VP56						
			23, 24, 25, 26, 27, 28, 29	111681	1VP50						
			30, 31, 32, 33, 34, 35, 36								

*Bore size = 1 inch.

**Assume 17 belt links per foot. Belt PN 201809 is Fenner #0408030. Belt PN 202655 is Fenner #0408050.

Table 12. Drives, Pulleys, and Belts for TEFC-Type Motors

HP	Motor Option	Voltage Option	Drive (AM) Option	Motor Pulley			Blower Pulley*		Belt**		
				PN	Model	Bore Size (Inches)	PN	Model	PN (Length (Feet))		
1/3	AL20	AK1, AK2, AK3, AK5, AK6, AK7	1, 2	4074	1VL34	1/2	111609	AK 99	201809 (3.8)		
			3, 4	13491	1VL40		19111	AK 84			
			5, 6, 7				18797	AK 64			
			8, 9, 10, 11, 12				135200	AK 51			
			13, 14, 15, 16, 17								
1/4	AL19		1, 2	13580	1VL34	5/8	111609	AK 99			
			3, 4	7962	1VL40		19111	AK 84			
			5, 6, 7				18797	AK 64			
			8, 9, 10, 11, 12				135200	AK 51			
			13, 14, 15, 16, 17				206125	AK44			
18, 19, 20, 21, 22, 23, 24, 25	105476		1VL44	135201	AK39						
1/2, 3/4, 1	AL21, AL22, AL23		1, 2	13580	1VL34		7/8	111609		AK 99	
			3, 4	7962	1VL40			19111		AK 84	
			5, 6, 7					18797		AK 64	
			8, 9, 10, 11, 12					135200		AK 51	
		13, 14, 15, 16, 17									
1-1/2	AL24	AK1, AK2, AK3, AK5, AK6, AK7	1, 2	13580	1VL34			7/8	111609	AK 99	
			3, 4	7962	1VL40				19111	AK 84	
			5, 6, 7						18797	AK 64	
			8, 9, 10, 11, 12						135200	AK 51	
			13, 14, 15, 16, 17			206125			AK44		
		18, 19, 20, 21, 22, 23, 24, 25	105476	1VL44	135201	AK39					
		AK8	1, 2	110125	1VP34	111609			AK 99		
			3, 4	106748	1VL40	19111			AK 84		
			5, 6, 7			18797			AK 64		
			8, 9, 10, 11, 12			135200			AK 51		
13, 14, 15, 16, 17	206125		AK44								
18, 19, 20, 21, 22, 23, 24, 25	106758	1VL44	135201	AK39							
2	AL25	AK5, AK6, AK7, AK8	1, 2	110125	1VP34	7/8	111609		AK 99		
			3, 4	106748	1VL40		19111		AK 84		
			5, 6, 7				18797		AK 64		
			8, 9, 10, 11, 12				135200	AK 51			
			13, 14, 15, 16, 17				206125	AK44			
18, 19, 20, 21, 22, 23, 24, 25	106758		1VL44	135201	AK39						
3	AL26		AK5, AK6, AK7, AK8	9, 10, 11, 12	106748		1VL40	7/8	101414	BK130	202655 (3.8)
				13, 14, 15, 16, 17	37451		1VM50		202654	BK105	201809 (3.8)
				18, 19, 20, 21, 22					16153	AK104	
				23, 24, 25, 26, 27, 28, 29					19111	AK84	
		30, 31, 32, 33, 34, 35, 36		105483					AK69		
3	AL26	AK1, AK2	9, 10, 11, 12	7963	2VP42		1-1/8	30621	2AK124	201809 (7.6)	
			13, 14, 15, 16, 17	111681	1VP50			202652	AK124	201809 (3.8)	
			18, 19, 20, 21, 22	161444	1VP56						
			23, 24, 25, 26, 27, 28, 29	111681	1VP50						
			30, 31, 32, 33, 34, 35, 36								
5	AL27	AK3, AK5, AK6, AK7, AK8	9, 10, 11, 12	7963	2VP42	1-1/8					30621
			13, 14, 15, 16, 17	111681	1VP50			202652	AK124	201809 (3.8)	
			18, 19, 20, 21, 22	161444	1VP56						
			23, 24, 25, 26, 27, 28, 29	111681	1VP50						
			30, 31, 32, 33, 34, 35, 36								
30, 31, 32, 33, 34, 35, 36	111681	1VP50	105483	AK69							

*Bore size = 1 inch.

**Assume 17 belt links per foot. Belt PN 201809 is Fenner #0408030. Belt PN 202655 is Fenner #0408050.

BLOWER COMPONENTS—CONTINUED

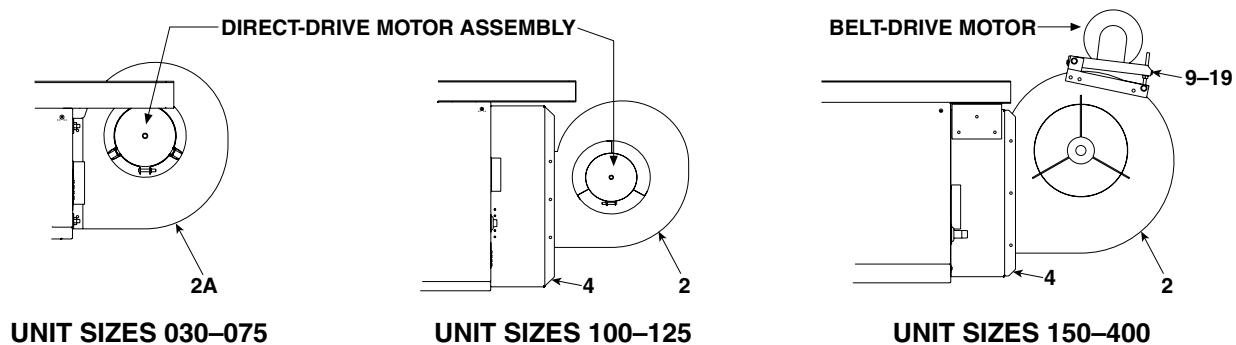


Figure 7. Blower Backs and Blowers (Refer to Table 13 and Table 14)

Table 13. Blower Backs and Blowers (Unit Sizes 030–125)

HP	Item No.	Component	Description	Unit Size			
				030	045–075	100	125
				PN (Quantity)*			
All	1	Restrictor assembly		201408	—		
	1A	Restrictor		194512			
	1B	Angle	Restrictor	100892 (3)			
	1C	Screw	Sheet metal	195638 (3)			
	2	Blower assembly		201401	—		
	2A	Blower	9 × 6	82111			
			10 × 10	—	201770		
	2B	Mounting angle	Blower	201740 (2)	—		
	2C	Screw	Tek, #10 × 1/2 long	37661 (6)			
	3	Corner post	Blower back		196239		
	4	Back assembly	Blower adapter				
	4A	Adapter back	Bottom		202050	202050	
	4B		Top		196032	196032	
	4C		Left side		197253	197253	
	4D		Right side		197254	197254	
	4E	Screw		195638 (20)			
	4F	Air baffle	Horizontal		196344 (2)		
	4G		Vertical				
	4H	Support bracket		Refer to Table 14			
	4I	Support bracket					
4J	Bolt						
4K	Nut						
5	Key						
6	Blower shaft		Refer to Table 14				
7	Blower bearing						
1/4–3/4	8	Bracket assembly, motor adjustment		Refer to Table 14			
1–5	9–19	Mounting hardware for unit sizes 150–400					

*Quantity is one (1) inless otherwise indicated.

NOTE: Items 1, 3, 5, 6, 7, and 8 are not shown in Figure 7.

Table 14. Blower Backs and Blowers (Unit Sizes 150–400)

HP	Item No.	Component	Description	Unit Size			
				150	175–200	225, 250	300–400
				PN (Quantity)*			
All	1	Restrictor assembly		Refer to Table 13			
	1A	Restrictor					
	1B	Angle					
	1C	Screw					
	2	Blower assembly					
	2A	Blower	12 x 12	1360	—		
			15 x 11	—	100658	—	
			15 x 15	—		100659	
	2B	Mounting angle		Refer to Table 13			
	2C	Screw					
	3	Corner post	Blower back	201797	201798	201799	
	4	Back assembly	Blower adapter	202931	201800	201801	201802
	4A	Adapter back	Bottom	201718	201719	201720	
	4B		Top	201715	201716	201717	
	4C		Left side	201724	201725	201726	
	4D		Right side	201721	201722	201723	
	4E	Screw		195638 (34)	195638 (26)	195638 (34)	
	4F	Air baffle	Horizontal	202934	202932 (2)	—	202933 (2)
	4G	Air baffle		Refer to Table 13			
	4H	Support bracket	Hanger, left	202759			
4I	Hanger, right		202760				
4J	Bolt**	1/4 x 5/8	(6) 47252				
4K	Nut	1/4-20	(6) 7328				
5	Key	1/4 square x 1-1/4 long	16099				
6	Blower shaft	1 x 22	11303		—		
		1 x 23	—		100747		
7	Blower bearing	SRC-16-1-1-inch	10437				
1/4–3/4	8	Bracket assembly	Motor adjustment		193996	—	
	8A	Bracket	Motor adjustment		12575		
	8B	Nut	Spotweld, 5/16-18		16233 (2)		
	8C	Bolt, motor adjustment	Hex head, 5/16-18 x 4 long		14668 (2)		
	8D	Nut	Hex, 5/16-18		1035 (2)		
	8E	Capscrew, hex head	1/4-20 x 3/4 long		16246 (2)		
	8F	Nut, Keps	Hex, 1/4-20		10650 (2)		
	8G	Washer	Flat, 1/4		1320 (4)		
8H	Hardware bag		64940				
1–5	9	Plate	Motor mounting	202839	202840	202841	
	10	Support, motor mounting plate	Left	12576			
			Right	12577			
	12	Rod bolt	5/16-18	12489 (2)			
	13	Nut	Hex, 5/16-18	1035 (2)			
	14	Nut, Keps	Hex, 5/16-18	6554 (6)			
	15	Washer	Flat, 5/16	1087 (8)			
	16	Capscrew, hex head	5/16-18 x 3/4 long	16247 (6)			
			5/16-18 x 1-1/2 long	16248 (2)			
	18	Insert, threaded	5/16-18 (#ATS2-518)	124260 (4)			
	19	Fastener, Teks	#10-16 x 1/2 long	37661 (4)			

*Quantity is one (1) unless otherwise indicated.

**For securing hanger support bracket to adapter back.

NOTE: Items 1, 3, 5, 6, 7, and 8 are not shown in [Figure 7](#).

CABINET COMPONENTS

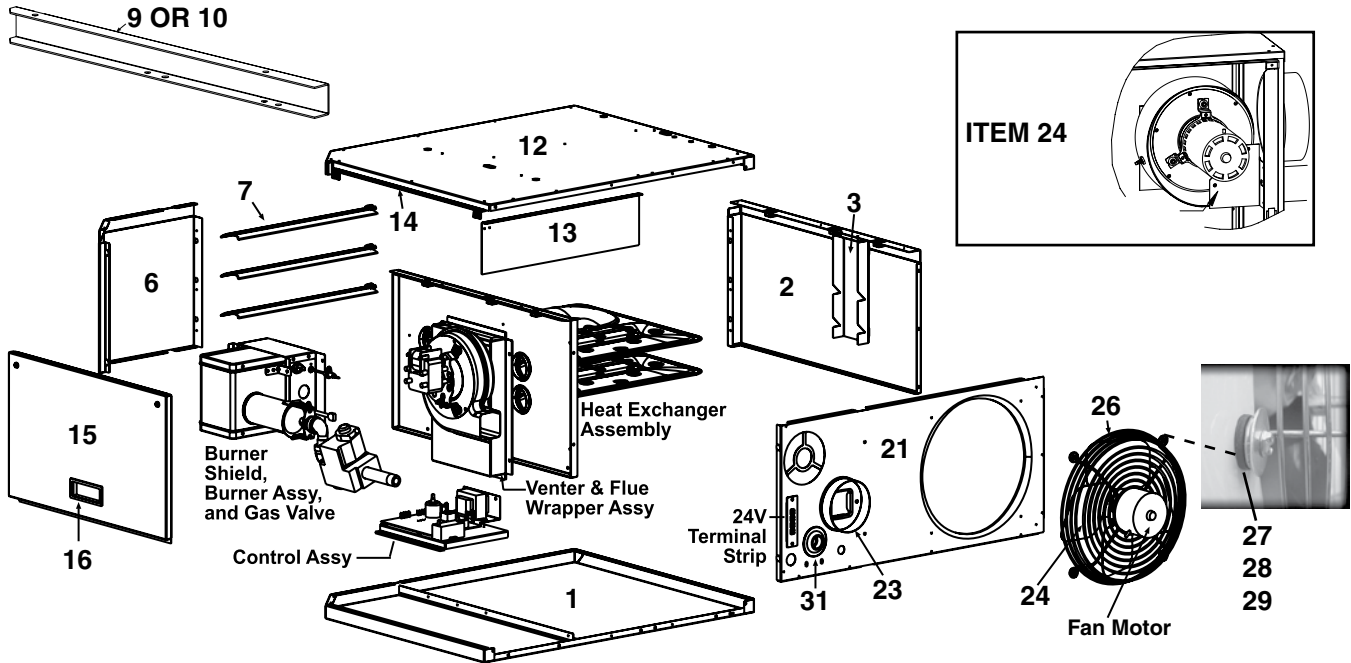


Figure 8. Cabinet Components (Refer to Table 15 and Table 16)

Table 15. Cabinet Components (Unit Sizes 030–125)									
Item No.	Component	Description	Model	Unit Size					
				030	045	060	075	100	125
				PN (Quantity)*					
1	Pan assembly	Bottom	UDAP, UDBP, UDAS, UDBS	195772					
			APD	1000039					
2	Side panel	Left (parts change effective APR 2012)	UDAP, UDBP, UDAS, UDBS	195492**		195493**		195494**	
		Left	APD	1000003		1000004		1000005	
3	Support**	Heat exchanger (parts change effective 18 MAR 2003)	All	196317	196318	196319	196320	196321	196322
4	Gasket	Heat exchanger support (not shown)		236155 (2)					
5	Screw	Sheet metal, #8-18 x 3/8 (not shown)		195638					
6	Front panel**	Parts change effective 18 MAR 2003, requires top panel (item 12) if replaced on unit manufactured before APR 2010)	UDAP, UDAS	195489		195490		195491	
			APD	1000010		1000011		1000012	
			UDBP, UDBS	201755		201756		201757	
7	Louver	Horizontal	UDAP, UDBP, UDAS, UDBS	195314 (3)		195314 (4)		195314 (6)	
			APD	1000040		1000040		1000040	
8	Spring	Compression, for louver (not shown)	All	195046 (3)		195046 (4)		195046 (6)	
9	Hanger bar	Right	UDBP, UDBS	202744			202746	202748	202750
		Left		202743			202745	202747	202749
11	Clip nut	For hanging (not shown)	All	196336 (2)					
			UDAP, UDAS	195498					
11A	Top panel**	Parts changes effective 18 MAR 2003 and APR 2012, includes top door seal (item 14) effective APR 2010, requires new front panel (item 6) if replaced on unit manufactured before APR 2010)	APD	1000009					
			UDBP, UDBS	201406					
12	Nut	Captive in top panel	All	96385 (6)					
13	Air baffle	Top	APD, UDAP, UDAS	195545	195546	195547	195548	195549	195550
14	Top door seal	Effective APR 2010, part of top panel (item 12)	UDAP, UDAS, UDBP, UDBS	195999					

*Quantity is one (1) unless otherwise indicated.
 **Not interchangeable with previously-manufactured part with the same PN.

Table 15. Cabinet Components (Unit Sizes 030–125)—Continued

Item No.	Component	Description	Model	Unit Size					
				030	045	060	075	100	125
				PN (Quantity)*					
15	Access door	Does not include handle and gaskets	UDAP, UDBP	195483		195484		195485	
			APD	1000013		1000014		1000015	
			UDAS, UDBS	207604		207605		207606	
16	Plug	Window	UDAS, UDBS	207525					
17	Handle	Door (not shown)	UDAP, UDAS, UDBP, UDBS	196881					
18	Rubber	Door (not shown)	APD, UDAP, UDBP	155064 (4)					
19	Gasket	Door, top/bottom (not shown)	UDAS, UDBS	196331 (2)					
20		Door, side (not shown)		196332 (2)		196333 (2)		196334 (2)	
21	Rear panel	—	UDAP, UDBP	195486		195487		195488	
			APD	1000006		1000007		1000008	
		Includes inlet collar	UDAS	197035		197036		197037 (parts change effective 18 MAR 2003)**	
		—	UDBP	201399		201400		196346	
		Includes inlet collar	UDBS	201383		201384		201385	
22	Gasket	Outlet collar (not shown)	All	170048					
23	Outlet collar	4-inch	APD, UDAP, UDAS	195077					
			APD, UDAP, UDAS (each with option AV6)	195077		—			
			UDAS, UDBS	195077					
		5-inch	APD, UDAP, UDAS (each with option AV6)	—		195079	—		
24	Support, flue (outlet) collar		Refer to Table 16						
25	Fan blade (not shown)	APD, UDAP, UDAS	195644	195645	195646	195647	195648	195649	
		Low noise: APD-45LN, UDAP-45LN (both with option AL2B)	—	202960	—				
26	Fan guard	Standard spacing	175266		175267		195047		
		Fingerproof (option AZ8)	260873		260874		260875		
27	Bushing	Fan guard isolator	196349 (4)						
28	Screw	Fan guard isolator/bushing	196330 (4)						
29	Isolator	Fan guard	196348 (4)						
30	Clip	Fan guard (in back, not shown)	54633 (4)						
31	Grommet	For pipe	UDAS, UDBS	102607					
32	Paint, spray	Cabinet touchup, 11-oz can, white (not shown)	201805						
33		Horizontal louver, 12-oz can, maroon (not shown)	207432						

*Quantity is one (1) unless otherwise indicated.

**Not interchangeable with previously-manufactured part with the same PN.

CABINET COMPONENTS—CONTINUED

Table 16. Cabinet Components (Unit Sizes 150–400)											
Item No.	Component	Description	Model	Unit Size							
				150	175	200	225	250	300	350	400
				PN (Quantity)*							
1	Pan assembly	Bottom	UDAP, UDBP, UDAS, UDBS	196025				196350			
			APD	1000042				1000043			
2	Side panel	Left	UDAP, UDBP, UDAS, UDBS	195562		195563		195564			
			APD	1000020		1000021		1000022			
3	Support	Heat exchanger	All	Part of replacement heat exchanger (refer to Table 19)							
4	Gasket	Heat exchanger support (not shown)									
5	Screw	Sheet metal, #8-18 x 3/8 (not shown)									
6	Front panel	Requires top panel (item 12) if replaced on unit manufactured before APR 2010	UDAP, UDAS	201692		201693		201694			
			APD	1000044		1000045		1000046			
			UDAP, UDBP, UDBS	201692		201693		201694			
			APD	1000044		1000045		1000046			
7	Louver	Horizontal	UDAP, UDBP, UDAS, UDBS	195578 (5)		195578 (7)		195578 (10)			
			APD	1000041 (5)		1000041 (7)		1000041 (10)			
8	Spring	Compression for louver (not shown)	All	195046 (5)		195046 (7)		195046 (10)			
9	Hanger bar	Right	UDBP, UDBS	202752		202754		202756	202758		
10		Left		202751		202753		202755	202757		
11	Clip nut	For hanging (not shown)	All	196336 (2)							
12	Top panel	Includes top door seal (item 14) effective APR 2010, requires new front panel (item 6) if replaced on unit manufactured before APR 2010)	UDAP, UDAS	195556				195557			
			APD	1000027				1000029			
			UDBP, UDBS	202944				195557			
12A	Nut	Captive in top panel	All	96385 (6)							
13	Air baffle	Top	UDBP, UDBS	202945	202946		—				
14	Top door seal	Effective APR 2010, part of top panel (item 12)	UDAP, UDAS, UDBP, UDBS	196225							
15	Access door	Does not include handle and gaskets	UDAP, UDBP	195565		195566		195567			
			APD	1000033		1000034		1000035			
			UDAS, UDBS	207607		207608		207609			
16	Plug	Window	UDAS, UDBS	207525							
17	Handle	Door (not shown)	UDAP, UDAS, UDBP, UDBS	196881							
18	Rubber	Door (not shown)	APD, UDAP, UDBP	155064 (4)							
19	Gasket	Door, top/bottom (not shown)	UDAS, UDBS	201673 (2)							
20		Door, side (not shown)		201674 (2)		201675 (2)		201676 (2)			
21	Rear panel	—	UDAP	196347	195558	195559		195560			
		—	APD	1000023	1000024	1000025		1000026			
		Includes inlet collar	UDAS	197038	197039	197040		197041			
		—	UDBP	201789	201790	201791		201792			
		Includes inlet collar	UDBS	202319	202320	202321		202322			

*Quantity is one (1) unless otherwise indicated.

Table 16. Cabinet Components (Unit Sizes 150–400)—Continued

Item No.	Component	Description	Model	Unit Size							
				150	175	200	225	250	300	350	400
				PN (Quantity)*							
22	Gasket	Outlet collar (not shown)	All	170048		196822					
23	Outlet collar	5-inch		195079		216950			—		
		6-inch		—		—			216951		
24	Support	Flue (outlet) collar	—	254952							
25	Fan blade (not shown)		APD, UDAP, UDAS	195679 (replaces 195678)	195679	195680	195681	195682	195683	209122 (replaces 195684)	209121 (replaces 195685)
26	Fan guard	Standard spacing	APD, UDAP, UDAS	170084			170085		170086		
27	Bushing	Fan guard isolator		96451 (4)							
28	Screw	Fan guard isolator/bushing		96452 (4)							
29	Isolator	Fan guard		196348 (4)							
30	Clip	Fan guard (in back, not shown)		54633 (4)							
31	Grommet	For pipe	UDAS, UDBS	102607			15021				
32	Paint, spray	Cabinet touchup, 11-oz can, white (not shown)	All	201805							
33		Horizontal louver, 12-oz can, maroon (not shown)		207432							

*Quantity is one (1) unless otherwise indicated.

VENTER AND FLUE WRAPPER COMPONENTS

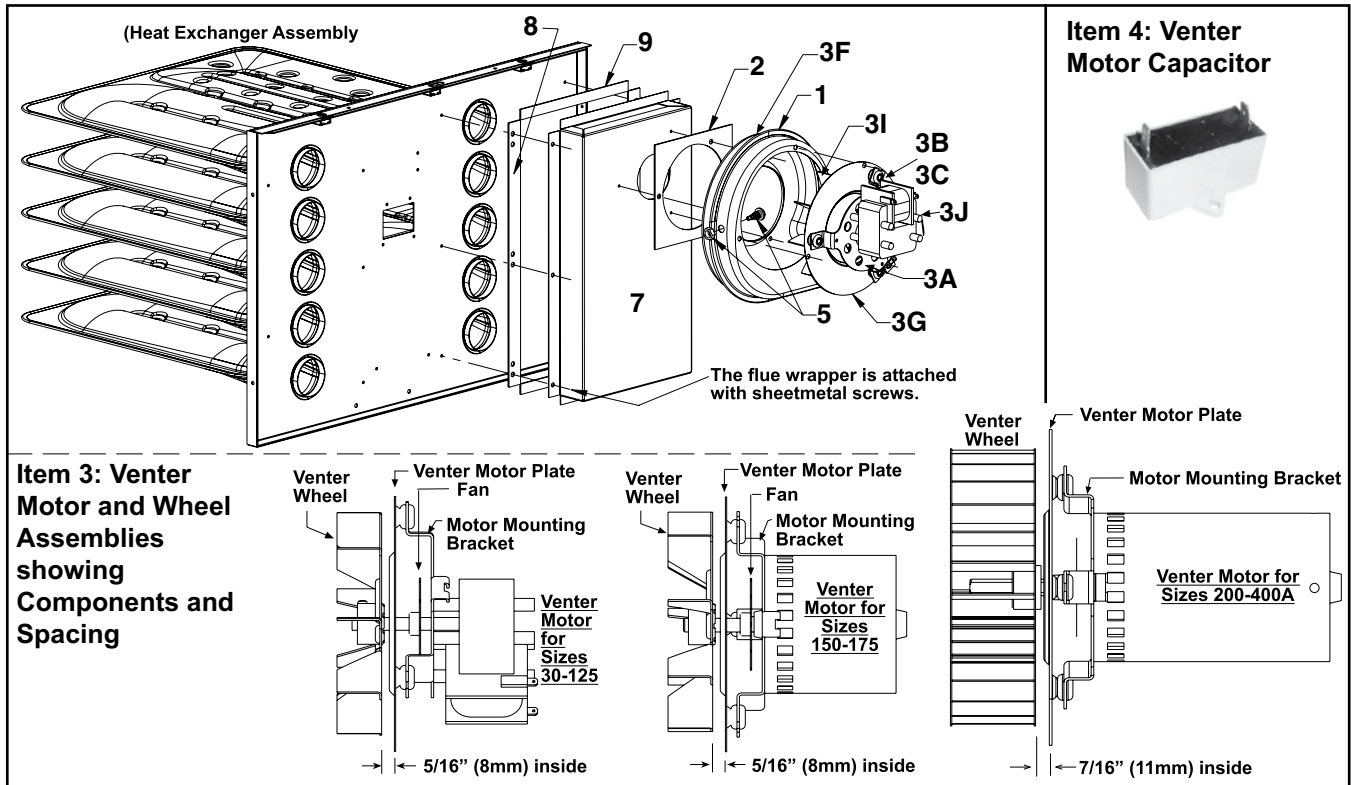


Figure 9. Venter and Flue Wrapper Components (Refer to Table 17 and Table 18)

VENTER AND FLUE WRAPPER COMPONENTS—CONTINUED

Table 17. Venter and Flue Wrapper Components (Unit Sizes 030–125)									
Item No.	Component	Description	Model	Unit Size					
				030	045	060	075	100	125
				PN (Quantity)*					
1	Housing	Venter	All	196248					
2	Gasket	Venter housing		196012					
3	Venter motor and wheel assembly**	115V	All (except units with option AV6)	220779			220780		
		208/230V/1PH	APD, UDAP, UDAS	220781					
3A	Bracket***	Venter motor	All	195072			—		
3B	Isolator	Venter motor		194534 (3)					
3C	Bushing	Venter motor isolator		194803 (3)					
3D	Screw	Venter motor isolator bushing		113275 (3)					
3E	Plate	Venter motor		194806					
3F	Gasket	Venter motor plate		Refer to Table 18					
3G	Clip	Venter motor		Not required					
3H	Screw	Venter motor clip							
3I	Wheel	Venter		All (except APD & UDAP with option AV6)	195036				
			APD, UDAP (each with option AV6)	211819			—		
3J	Venter motor (units with 460V and 575V supply use 115V venter motor)	115V only	All	217032 (on units equipped with Broad Ocean motor 1005552, replace with kit 1020425)			262444 (on units equipped with Broad Ocean motor 1005553, replace with kit 262444)		
		115V	APD, UDAP (each with option AV6)				262444 (on units equipped with Broad Ocean motor 1005553, replace with kit 262444)		
		208/230V/1PH	APD, UDAP, UDAS	236160 (replaces 196827)					
3K	Cooling fan	Venter motor	All	195766					
4	Venter motor capacitor		Refer to Table 18						
5	Static pressure tap		116043						
6	Tubing, silicone rubber	6 inches long	All	148986					
7	Flue wrapper assembly		APD, UDAP, UDBP	196000	196001	196002	196003	196004	196005
			APD, UDAP (each with option AV6)	196802	196803	196804	196805	196806	—
			UDAS	196807	196808	196809	196810	196811	196812
			UDBS	202715	202716	202717	202718	202719	196812
8	Gasket	Flue wrapper, side	All	170029 (2)		170030 (2)		170031 (2)	
9		Flue wrapper, top/bottom		170038 (2)					

*Quantity is one (1) unless otherwise indicated.

**Units with 460V and 575V supply use the 115V venter motor.

***Not needed with venter motor PNs 236160 through 236163.

Table 18. Venter and Flue Wrapper Components (Unit Sizes 150–400)

Item No.	Component	Description	Model	Unit Size							
				150	175	200	225	250	300	350	400
				PN (Quantity)*							
1	Housing	Venter	All	196248	257029 (replaces 195634 effective 23 JUL 2009)						
2	Gasket	Venter housing		196012	254935 (replaces 196013 effective 23 JUL 2009)						
3	Venter motor and wheel assembly**	115V	All (except units with option AV6)	220782	220784		220786				
		208/230V/1PH	APD, UDAP, UDAS	220783	220785		220787				
		208/230V/3PH	UDBP, UDBS	220783	220785		220787				
3A	Bracket***	Venter motor	All	195072							
3B	Isolator	Venter motor		194534 (3)							
3C	Bushing	Venter motor isolator		194803 (3)							
3D	Screw	Venter motor isolator bushing		113275 (3)							
3E	Plate	Venter motor		194806	194910						
3F	Gasket	Venter motor plate		—	201472						
3G	Clip	Venter motor		Not required							
3H	Screw	Venter motor clip		Not required							
3I	Wheel	Venter	All (except APD & UDAP with option AV6)	195036	195666						
3J	Venter motor (units with 460V and 575V supply use 115V venter motor)	115V only	All	236157 (replaces 196036)	236158		236159				
		208/230V/1PH	APD, UDAP, UDAS	236161 (replaces 196828)	236162 (replaces 196829)		236163 (replaces 196830)				
		208/230V/3PH	UDBP, UDBS	236161 (replaces 196828)	236162 (replaces 196829)		236163 (replaces 196830)				
		115V	APD, UDAP, UDAS (each with options D10 and D14)	236157 (replaces 207992)	236157 (replaces 196036)	236158		236159			
		208/230V/1PH	APD, UDAP, UDAS (each with options D10 and D14)	236161 (replaces 196828)	236162 (replaces 196829)		236163 (replaces 196830)				
3K	Cooling fan	Venter motor	All	195766	196035						
4	Venter motor capacitor	115V, 3µF, 400VAC		All	236180 (units with motor PN 236157 manufactured after MAR 2015)						
		115V, 4µF, 400VAC			195641 (units with motor PN 196036 manufactured before MAR 2015)						
		115V, 5µF, 400VAC			—						
		115V, 7.5µF, 400VAC		APD, UDAP, UDAS	—						
		208/230V/1PH, 4µF, 400VAC			195641	—		195641			
		208/230V/1PH, 5µF, 400VAC			—	195642		—			
		115V			—	195643		195642	195643	195643	
115V, 3µF, 400VAC	APD, UDAP, UDAS (each with options D10 and D14)	236180 (units with motor PN 236157 manufactured after MAR 2015)									

*Quantity is one (1) unless otherwise indicated.

**Units with 460V and 575V supply use the 115V venter motor.

***Not needed with venter motor PNs 236160 through 236163.

VENTER AND FLUE WRAPPER COMPONENTS—CONTINUED

Table 18. Venter and Flue Wrapper Components (Unit Sizes 150–400)—Continued												
Item No.	Component	Description	Model	Unit Size								
				150	175	200	225	250	300	350	400	
				PN (Quantity)*								
4 (cont.)	Venter motor capacitor (continued)	115V, 4 μ F, 400VA	APD, UDAP, UDAS (each with options D10 and D14) (continued)	—	195641 (units with motor PN 196036 manufactured before MAR 2015)							
		115V, 5 μ F, 400VAC		195642 (units with motor PN 196036 manufactured before MAR 2015)								
		208/230V/1PH	UDBP, UDBS	195641		195642		195641				
		208/230V/3PH, 4 μ F, 400VAC		195641		—		195641				
		208/230V/3PH, 5 μ F, 400VAC		—		195642		—				
5	Static pressure tap	All	116043									
6	Tubing, silicone rubber		12 inches long	148251		—						
			16 inches long	—		205837		—				
			20 inches long	—		—		130673				
			22 inches long	—		—		157904				
7	Flue wrapper assembly		201473 204461		Units manufactured before 23 JUL 2009							
					201475	201476	201477	201478	201481	202721		
			Units manufactured after 22 JUL 2009									
			254944	254945	254946	254947	254948	254949				
8	Gasket		Flue wrapper, side	170033 (2)	170034 (2)	170035 (2)	170042 (2)	170043 (2)	170044 (2)	170036 (2)	170037 (2)	
9		Flue wrapper, top/bottom	170039 (2)									
*Quantity is one (1) unless otherwise indicated.												
**Units with 460V and 575V supply use the 115V venter motor.												
***Not needed with venter motor PNs 236160 through 236163.												

HEAT EXCHANGER AND BURNER ASSEMBLY COMPONENTS

NOTE: Replacement heat exchanger and burner assembly for unit sizes 30–125 are shown in [Figure 10](#). Replacement heat exchanger for unit sizes 150–400 includes a tube support and four channels that connect the header to the support. All replacement heat exchangers include a gasket kit with instructions for attaching gaskets.

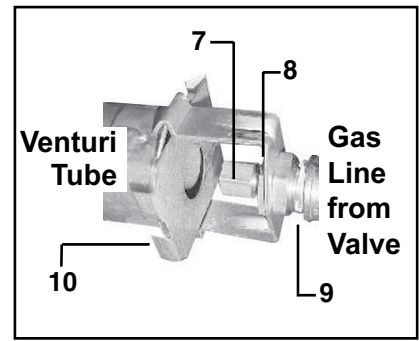
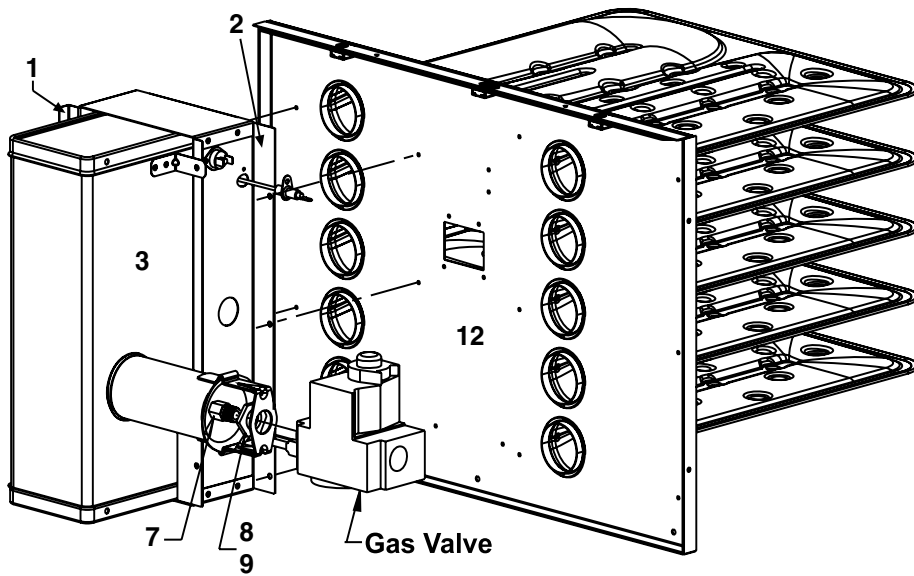


Figure 10. Replacement Heat Exchanger and Burner Assembly Components—Unit Sizes 30–125
(Refer to [Table 19](#) and [Table 20](#))

Table 19. Burner Assembly Components (Unit Sizes 030–125)									
Item No.	Component	Description	Model	Unit Size					
				030	045	060	075	100	125
				PN (Quantity)*					
1	Burner shield	Front side	APD, UDAP, UDAS UDBP, UDBS	222100	222101	222102	222103 222104	222105	222106
		Rear side	APD, UDAP, UDAS UDBP, UDBS	222127 222147	222128 222148	222129 222149	222130 222150	222131 222151	222132 222152
3	Burner assembly		APD, UDAP, UDAS UDBP, UDBS	195231 195231	195232 195232	195233 195233	195234 202642	195235 195235	195236 195236
		4	Gasket	Burner end (not shown)	All	195667 (2)			
5	Burner baffle (not shown)		APD, UDAP, UDAS			—	—	196750 (2)	
			UDBP, UDBS		—	196749 (2)	196751 (2)		—
							202682 (2)	196750 (2)	
							202683 (2) 202684 (2)	196751 (2)	—
6	Burner support (not shown)			196597 (3) 196752	196597 (4)			196597 (6)	
7	Burner orifice		All	Refer to Table 21					
8	Nut, pipe	1/2		165702					
9	Bushing	Orifice adapter, 1/2 x 1/4		165701					
10	Primary air restrictor	For propane only	APD, UDAP, UDAS UDBP, UDBS	196687 203078	196688			—	
			APD, UDAP, UDAS UDBP, UDBS	269835 269840	269836 269841			196688 269837	
11	Gas conversion kit (not shown)	Natural gas to propane	APD, UDAP, UDAS UDBP, UDBS	269835 269840	269836 269841			269837	
		Propane to natural gas	All	269851	269852			269853	
12	Heat exchanger assembly with gasket kit	Aluminized	APD, UDAP, UDAS	201628	201629	201630	201631	201632	201633
		409 stainless steel		201654	201655	201656	201657	201658	201659
		316 stainless steel		201641	201642	201643	201644	201645	201646
		Aluminized	UDBP, UDBS	202623	202624	202625	202626	202627	202628
		409 stainless steel		202629	202630	202631	202632	202633	202634
		316 stainless steel		202635	202636	202637	202638	202639	202640
12A	Gasket kit for heat exchanger			201667	201668			201669	

*Quantity is one (1) unless otherwise indicated.

HEAT EXCHANGER AND BURNER ASSEMBLIES—CONTINUED

Table 20. Burner Assembly Components (Unit Sizes 150–400)											
Item No.	Component	Description	Model	Unit Size							
				150	175	200	225	250	300	350	400
				PN (Quantity)*							
1	Burner shield	Front side	APD, UDAP, UDAS	222107	222108	222109	222110	222111	222112		
			UDBP, UDBS						222112	222113	
2		Rear side	APD, UDAP, UDAS	222133	222134	222136	222137	222138	222139		
			UDBP, UDBS						222139	222140	
3	Burner assembly		All	195237	195238	195239	195240	195241	195242	195243	
4	Gasket	Burner end (not shown)		195668 (2)							
5	Burner baffle (not shown)			197238 (2)					197239 (2)	—	
6	Burner support (not shown)			196598 (4)			196598 (6)				
7	Burner orifice			Refer to Table 21							
8	Nut, pipe	1/2		165702							
9	Bushing, orifice adapter	1/2 × 1/4		165701			—				
		3/4 × 3/8		—			194809				
10	Primary air restrictor	For propane only		196688	—						
11	Gas conversion kit (not shown)	Natural gas to propane		269838		269839		201732			
		Propane to natural gas	269854		269855		201738				
12	Heat exchanger assembly with gasket kit	Aluminized	APD, UDAP, UDAS	201634	201635	201636	201637	201638	201639	201640	
		409 stainless steel		201660	201661	201662	201663	201664	201665	201666	
		316 stainless steel		201647	201648	201649	201650	201651	201652	201653	
		Aluminized	UDBP, UDBS	201634	201635	201636	201637	201638	201639	201640	
		409 stainless steel		201660	201661	201662	201663	201664	201665	201666	
316 stainless steel	201647	201648		201649	201650	201651	201652	201653			
12A	Gasket kit for heat exchanger		201670		201671	221214	201672				

*Quantity is one (1) unless otherwise indicated.

Table 21. Burner Orifices				
Unit Size*	Natural Gas		Propane	
	Orifice (Drill) Size	PN	Orifice (Drill) Size	PN
030	#37	196853	1.6-mm	196844
045	#30	196838	#48	196845
060	3.7-mm	196839	2.3-mm	196846
075	#19	196855	#39	196852
100	#10	120158	3.0-mm	196854
125	#4	196840	3.2-mm	196847
150	5.9-mm	131581	9/64-inch	196898
175	E	196891	#24	196899
200	6.8-mm	196892	4.1-mm	196900
225	6.95-mm	221121	11/64-inch	196901
250	L	208255	#14	196902
300	8.0-mm	221122	#8	196903
350	8.7-mm	221123	#3	196904
400	9.6-mm	196897	5.8-mm	196905

*All models.

VENTING AND COMBUSTION AIR KIT COMPONENTS (MODELS UDAS AND UDBS)

There are three venting and combustion air kits (see [Figure 11](#)). The vertical vent terminal/combustion air package is the same as option CC2. The horizontal vent terminal/combustion air package is the same as option CC6. The aesthetic horizontal concentric vent/combustion air package is the same as option CC14 and is used for finished wall installations of models UDAS and UDBS (unit sizes 030–075 only). Kit components are listed in [Table 22](#).

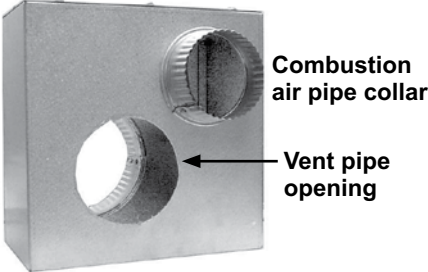
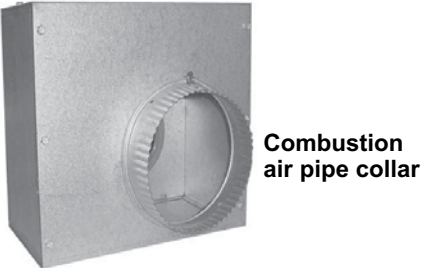


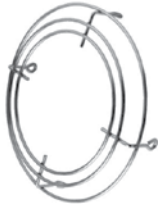

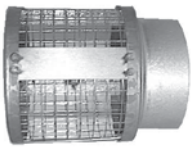



<p>Item 1A: Concentric Adapter Box Assembly</p> 	<p>Item 1B: Concentric Adapter Box Assembly</p> 	
<p>Item 2A: Exhaust (Vent) Terminal</p> 	<p>Item 2B: Exhaust Grill</p> 	<p>Item 3B: Inlet Guard</p> 
<p>Item 3A: Combustion Air Inlet</p> 	<p>Item 6B: Screened Exhaust Assembly</p> 	
 <p>Item 1C: Concentric Adapter Box</p> <p>Item 5C: Sealing Gasket</p> <p>Field-supplied concentric pipes</p> <p>Item 2C: Vent/ Combustion Air Terminal Assembly</p>	<p>Finished Vinyl Siding Installation</p>  <p>Finished Brick Wall Installation</p> 	

Figure 11. Venting and Combustion Air Kit Components (Refer to [Table 22](#))

**VENTING AND COMBUSTION AIR KIT COMPONENTS
(MODELS UDAS AND UDBS)—CONTINUED**

NOTE:

- The concentric adapter box assembly (item 1A) for the vertical vent terminal/combustion air package is configured with a collar and a vent pipe opening on the heater connection side. The collar is for connecting the combustion air pipe from the heater and the vent pipe opening is for the vent pipe to run through from the terminal and outside air pipe to connect to the vent run.
- The concentric adapter box assembly (item 1B) for the horizontal vent terminal/combustion air package is configured with a collar on the vent terminal connection side. The collar is for connecting the outside portion of the combustion air pipe. The vent pipe runs concentric through the outside portion of the combustion air pipe.
- The concentric adapter box (item 1C) for the aesthetic horizontal concentric vent/combustion air package has a collar through which field-supplied concentric pipe is run to connect the vent/combustion air terminal assembly (item 2C).

Table 22. Venting and Combustion Air Kit Components

Kit	Unit Size		Item No.	Component	Unit Size	
	030-125	150-400			030-125	150-400
	Kit PN				Component PN (Quantity)*	
Vertical vent kit (same as option CC2)	205895	205896	1A	Concentric adapter box assembly	205884	205885
			2A	Exhaust (vent) terminal	110051	110052
			3A	Combustion air inlet	155635	53330
			4A	Bracket, concentric adapter box (not shown)	207232 (2)	
			5A	Sealant, clear silicone, #732, high temperature (450°F), 3-oz tube (not shown)	53335	
Horizontal vent kit (same as option CC6)	211762	211763	1B	Concentric adapter box assembly	211789**	211790**
					205884***	205885***
			2B	Exhaust grill	211791**	211792**
			3B	Inlet guard	151755	124940
			4B	Bracket, concentric adapter box (not shown)	207232 (2)	
			5B	Screw, #10-16 × 1/2 long, to attach guard and grill (not shown)	37661 (8)**	
			6B	Screened exhaust assembly	155096***	53316***
7B	Sealant, clear silicone, #732, high temperature (450°F), 3-oz tube (not shown)	53335				
Vent/combustion air kit (same as option CC14)	209343		1C	Concentric adapter box	209320	
			2C	Vent/combustion air terminal assembly	208994	
			3C	Bracket, mounting (not shown)	209337 (2)	
			4C	Screw, sheet metal, #8-18 × 3/8 (not shown)	195638 (6)	
			5C	Gasket, sealing	209338	
			6C	Sealant, clear silicone, #732, high temperature (450°F), 3-oz tube (not shown)	53335	

*Quantity is one (1) unless otherwise indicated.

**Effective NOV 2005.

***Units manufactured *before* NOV 2005.

ACCESSORIES/OPTIONS

High-Altitude (Above 6000 Feet/1830 Meters Elevation) Pressure Switch Kit

The high-altitude pressure switch kit is the same as option DJ20 or DJ21. Pressure switch (see [Figure 12](#)) locations are shown in [Figure 1](#), [Figure 2](#), and [Figure 3](#). Kit components are listed in [Table 23](#).

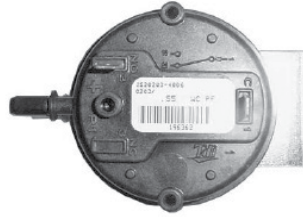


Figure 12. High-Altitude Pressure Switch

Table 23. High-Altitude Pressure Switch Kit Components												
Option	Model	Description	Unit Size									
			030	045	060	075	100	125	150	175	200-300	350 & 400
DJ20	ADP, UDAP	Kit package PN	197117		197118			197117			201162	201163*
		Pressure switch PN	197031		197032			197031			201160	201162**
		Negative pressure off setpoint (IN WC)	0.35		0.45			0.35			1.00	201161*
		Label color	Purple		Pink			Purple			Brown	201160**
	UDBP	Kit package PN	197117		197118			197117			201162	1.30*
		Pressure switch PN	197031		197032			197031			201160	1.00**
		Negative pressure off setpoint (IN WC)	0.35		0.45			0.35			1.00	White*
		Label color	Purple		Pink			Purple			Brown	Brown**
	UDAS	Kit package PN	197119				197121	197205	197117		201162	201163*
		Pressure switch PN	197029				196388	197030	197031		201160	201162**
		Differential pressure off setpoint (IN WC)	0.60				0.50	0.40	0.35		1.00	201161*
		Label color	Light blue				Orange	Green	Purple		Brown	201160**
	UDBS	Kit package PN	197117	197118	202103	197118	197117	197205	197117		201162	1.30*
		Pressure switch PN	197031	197032	196362	197032	197031	197030	197031		201160	1.00**
		Differential pressure off setpoint (IN WC)	0.35	0.45	0.55	0.45	0.35	0.40	0.35		1.00	White*
		Label color	Purple	Pink	White	Pink	Purple	Green	Purple		Brown	Brown**
DJ21	ADP, UDAP (each with option AV6)	Kit package PN	197119	197118	197120		197121		—			
		Pressure switch PN	197029	197032	196362		196388					
		Negative pressure off setpoint (IN WC)	0.60	0.45	0.55		0.50					
		Label color	Light blue	Pink	White		Orange					

*Units manufactured **before** 23 JUL 2009.

Units manufactured **after 22 JUL 2009.

ACCESSORIES/OPTIONS—CONTINUED

Vent Cap

The vent cap (see [Figure 13](#)) is the same as option CC1. The vent cap is used only on APD, UDAP, and UDBP models (refer to [Table 24](#)).



Figure 13. Vent Cap

Table 24. Vent Caps					
Model	Unit Size				
	030–075	100	125	150–250	300–400
	PN (Size)				
APD, UDAP, UDBP	111848 (4-inch)			111849 (5-inch)	111850 (6-inch)
ADP, UDAP (each with option AV6)	111848 (4-inch)	111849 (5-inch)	—		

Vertical Louver Assembly

NOTE: When installed, vertical louvers must be adjusted to achieve the desired airflow pattern.

The vertical louver assembly (see [Figure 14](#)) is the same as option CD1. Assemblies and their components are listed in [Table 25](#).

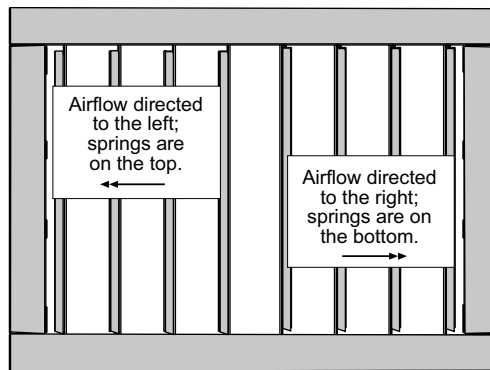


Figure 14. Vertical Louver Assembly

Table 25. Vertical Louver Assembly Components						
Component	Unit Size					
	030 & 045	060 & 075	100 & 125	150–200	225 & 250	300–400
	Assembly PN					
	197097	197098	197099	201199	201200	201201
Component PN (Quantity)						
Louver frame top and bottom	197056 (2)			197189 (2)		197190 (2)
Louver frame side	197057 (2)	197058 (2)	197059 (2)	197186 (2)	197187 (2)	197188 (2)
Screw, #8-18 × 3/8 long, AB point, slotted/indented/serrated hex washer head	195638 (20)					
Louver	196232 (5)	196231 (5)	196233 (5)	196572 (8)	196573 (8)	195315 (8)
Compression spring	195046 (5)	195046 (5)	195046 (5)	195046 (8)	195046 (8)	195046 (8)

Downturn Nozzle Assembly

The downturn nozzle assembly (see [Figure 15](#)) is the same as option CD2, CD3, CD4, or CD5. Assemblies and their components are listed in [Table 26](#).

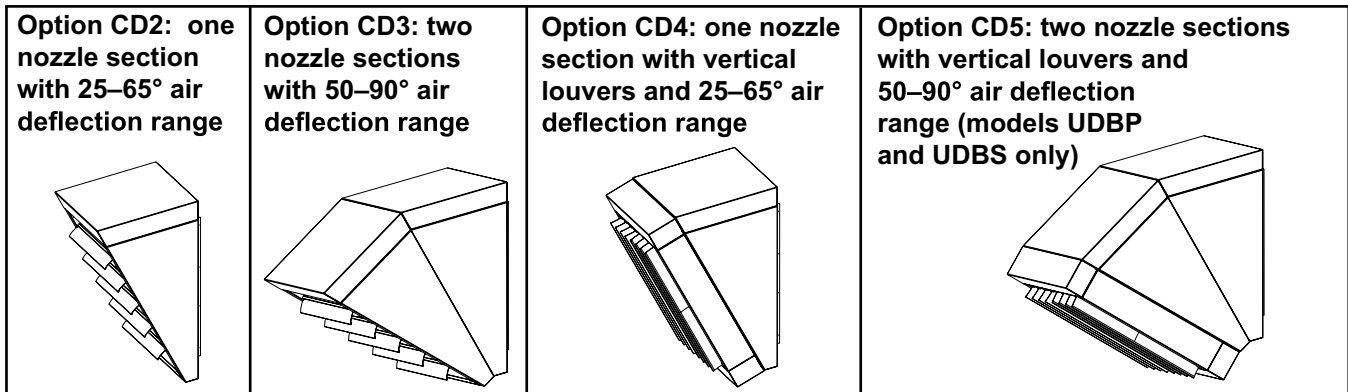


Figure 15. Downturn Nozzle Assemblies

Table 26. Downturn Nozzle Assembly Components							
Option	Component	Unit Size					
		030 & 045	060 & 075	100 & 125	150–200	225 & 250	300–400
PN (Quantity)							
CD2, CD3, CD4, CD5 (common components included with each)	Nozzle section right side	196990 (1)*	196991 (1)*	196992 (1)*	197173 (1)*	197174 (1)*	197175 (1)*
		196990 (2)**	196991 (2)**	196992 (2)**	197173 (2)**	197174 (2)**	197175 (2)**
	Nozzle section left side	196993 (1)*	196994 (1)*	196995 (1)*	197176 (1)*	197177 (1)*	197178 (1)*
		196993 (2)**	196994 (2)**	196995 (2)**	197176 (2)**	197177 (2)**	197178 (2)**
	Nozzle section top	196987 (1)*	196988 (1)*	196989 (1)*	197170 (1)*	197171 (1)*	197172 (1)*
	Nozzle bracket	—			201708 (2)		201709 (2)
	Nozzle section bottom	196996 (1)*		196997 (1)*		—*	197179 (1)*
Screw, #8-18 × 3/8 long, AB point, slotted/indented/ serrated hex washer head	196996 (2)**		196997 (2)**		197179 (2)**		
		195638 (14)*		195638 (16)*			
		195638 (28)**		195638 (30)**			
CD2	Assembly package (comprised of common components listed above)	197103 (1)	197104 (1)	197105 (1)	201202 (1)	201203 (1)	201204 (1)
CD3		197111 (1)	197112 (1)	197113 (1)	201205 (1)	201206 (1)	201207 (1)
CD4	Assembly package	197114 (1)	197115 (1)	197116 (1)	201208 (1)	201209 (1)	201210 (1)
	Vertical louver	196232 (5)	196231 (5)	196233 (5)	196572 (8)	196573 (8)	195315 (8)
	Compression spring	195046 (5)	195046 (5)	195046 (5)	195046 (8)	195046 (8)	195046 (8)
	Louver top and bottom support	197056 (2)			197189 (2)		197190 (2)
	Louver frame side	197057 (2)	197058 (2)	197059 (2)	197186 (2)	197187 (2)	197188 (2)
	Screw, #8-18 × 3/8 long, AB point, slotted/indented/ serrated hex washer head	195638 (20)					
CD5	Assembly package	202094 (1)	202095 (1)	202096 (1)	202097 (1)	202098 (1)	202099 (1)
	Vertical louver	196232 (5)	196231 (5)	196233 (5)	196572 (8)	196573 (8)	195315 (8)
	Compression spring	195046 (8)					
	Louver top and bottom support	197056 (2)			197189 (2)		197190 (2)
	Louver frame side	197057 (2)	197058 (2)	197059 (2)	197186 (2)	197187 (2)	197188 (2)
	Screw, #8-18 × 3/8 long, AB point, slotted/indented/ serrated hex washer head	195638 (22)					
*CD2 and CD4 components.							
**CD3 and CD5 components.							

ACCESSORIES/OPTIONS—CONTINUED

Duct Flange Assembly

The duct flange assembly is the same as option CD9. The duct flange assembly is used only on UDBP and UDBS models (refer to [Table 27](#)).

Table 27. Duct Flange Assembly Components						
Component	Unit Size					
	030 & 045	060 & 075	100 & 125	150–200	225 & 250	300–400
	Assembly Package PN					
	202909	202910	202911	202912	202913	202914
Component PN (Quantity)						
Duct flange section, side, top/side, and bottom	201750 (2)	201751 (2)	201752 (2)	201813 (2)	201814 (2)	201815 (2)
Screw, sheet metal, #10 × 1/2	11813 (16)	11813 (14)	11813 (16)	11813 (18)		

Polytube Adapter Assembly

The polytube adapter assembly (see [Figure 16](#)) is the same as option CD11. The polytube adapter assembly is used only on unit sizes 075–400 for UDBP and UDBS models (refer to [Table 28](#)).

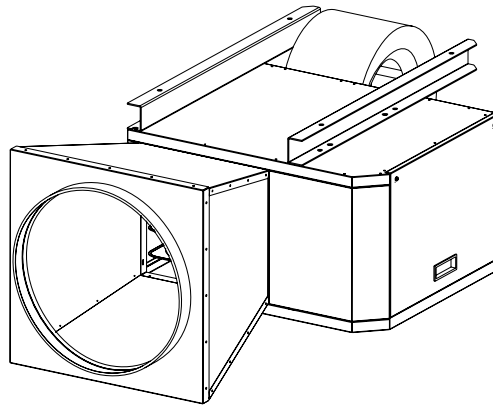


Figure 16. Polytube Adapter Assembly

Table 28. Polytube Adapter Assembly Components					
Component	Unit Size				
	075	100 & 125	150–200	225 & 250	300–400
	Assembly Package PN				
	203086	203087	203088	203089	203090
Component PN (Quantity)*					
Adapter top/bottom	202962 (2)	202964 (2)	202966 (2)	202968 (2)	202970 (2)
Adapter side	202961 (2)	202963 (2)	202965 (2)	202967 (2)	202969 (2)
Discharge panel assembly	101249		101250		
Discharge duct collar clamp	101499		146463		
Screw, sheet metal, #10 × 1/2 long	11813 (52)				
Screw, sheet metal, #10 × 3/4 long	20859		—		
Screw, hex head, 1/4-20 × 1-1/2 long	—		51231		
Nut, Hex, 1/4-20	—		7328		
Nut, wing, 1/4-20	—		107246		

*Quantity is one (1) unless otherwise indicated.

Blower Inlet and Belt Guard Assemblies

The blower inlet guard and belt guard assemblies (see [Figure 17](#)) together are the same as option CD10. The blower inlet guard assembly, when ordered separately is the same as option CD12. These guard assemblies are used only on UDBP and UDBS models (refer to [Table 29](#)).



Blower Inlet Guard Assembly



Belt Guard Assembly

Figure 17. Blower Inlet and Belt Guard Assemblies

Table 29. Blower Inlet and Belt Guard Assembly Components				
Option	Component	Unit Size		
		030–125	150–200	225–400
		Assembly Package PN		
		114548	202316	202317
Component PN (Quantity)*				
CD10	Blower inlet guard	—	203079	102475
	Belt guard		193797	193795
	Green wire assembly		202939	
	Screw, #10-16 x 1/2 long**		37661 (8)	
CD12	Blower inlet guard	102474	—	
	Screw, #10-16 x 1/2 long	37661 (4)		

*Quantity is one (1) unless otherwise indicated.
 **Four (4) screws are used to secure the blower inlet guard, three (3) are used to secure the belt guard, and one (1) is used to secure the ground wire to the blower.

Hanger Kit

There are two hanger kit options (see [Figure 18](#)), one for two-point suspension (same as option CK8) and one for four-point suspension (same as option CK10). Refer to [Table 30](#) for hanger kit assembly components.



Two-Point Suspension



Four-Point Suspension

Figure 18. Hanger Kits

Table 30. Hanger Kit Components		
Option	Component	PN (Quantity)
CK8 (two-point)	Hanger kit package	98509 (1)
	Swivel connector assembly	17627 (2)
	Lockwasher, 3/8	5197 (2)
CK10 (four-point)	Hanger kit package	98511 (1)
	Swivel connector assembly	17627 (4)
	Lockwasher, 3/8	5197 (8)
	Nut, hex, 3/8	1438 (4)

ACCESSORIES/OPTIONS—CONTINUED

Ceiling Suspension Kit

The ceiling suspension kit (see [Figure 19](#)) is the same as option CK22. The ceiling suspension kit is used only on unit sizes 030–125 for APD, UDAP, and UDAS models (refer to [Table 31](#)).

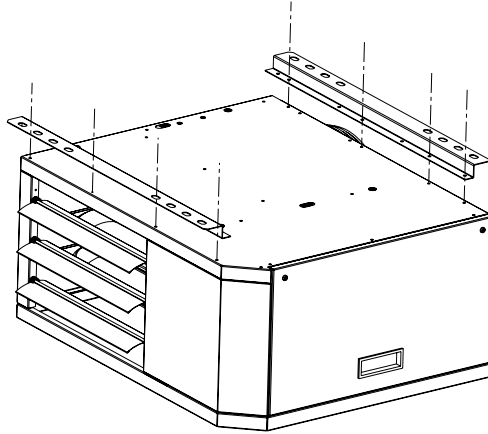


Figure 19. Ceiling Suspension Kit

Table 31. Ceiling Suspension Kit Components

Model	Component	Unit Size
		030–125
		PN (Quantity)
APD, UDAP, UDAS	Ceiling suspension kit package	197094 (1)
UDAP, UDAS	Ceiling bracket*	195496 (2)
APD		1000050 (2)
APD, UDAP, UDAS	Screw, sheet metal	195638 (1)

*Attach ceiling brackets to the top of the heater, across the front and rear. Use exiting cabinet screws and the screw from the kit.

Manual Shutoff Valve Assembly

The manual shutoff valve assembly (see [Figure 20](#)) is the same as option CE1. The manual shutoff valve assembly and its components are listed in [Table 32](#).



Figure 20. Manual Shutoff Valve Assembly

Table 32. Manual Shutoff Valve Assembly Components

Component	Unit Size	
	030–200	225–400
	PN	
Manual shutoff valve assembly	15971	15972
Ball valve, 1/2"	196910	—
Ball valve, 3/4"	—	196911
Union, 1/2"	1224	—
Union, 3/4"	—	1101

THERMOSTATS AND THERMOSTAT ACCESSORIES

Thermostat

There are two thermostat options (see [Figure 21](#)), one for a single-stage thermostat (same as option CL1) and one for a two-stage thermostat (same as option CL22). A cover (same as option CM1) is available for either thermostat. Refer to [Table 33](#) for PNs.



Single-Stage



Two-Stage



Locking Cover

Figure 21. Thermostats

Table 33. Thermostats		
Option	Component	PN
CL1	Single-stage thermostat, 24V, fan switch	255350
CL22	Two-stage thermostat, 24V, fan switch	220630
CM1	Locking thermostat cover	257464

Relay Kits

There are two relay kit options (see [Figure 22](#)), one for controlling two heaters (same as option CL31) and one for controlling up to six heaters (same as option CL32). Refer to [Table 34](#) for relay kit components.

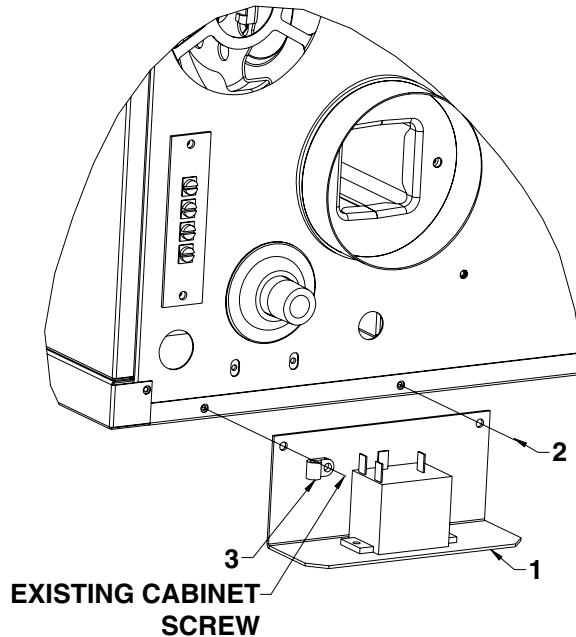


Figure 22. Relay Kit (Refer to [Table 34](#))

ACCESSORIES/OPTIONS—CONTINUED

Relay Kits—Continued

NOTE:

- The relay kit may be installed on the control heater and on up to five additional heaters.
- The cable clamp (item 3) and relay bracket assembly (item 1) are secured using an existing cabinet screw. The other end of the relay bracket assembly is secured using an existing cabinet screw for unit sizes 030–125 or with the screw (item 2) from the kit for unit sizes 150–400.

Table 34. Relay Kit Components

Item No.	Component	Option	
		CL31	CL32
		Relay Kit Package PN	
		197155*	197156**
Component PN (Quantity)			
1	Relay bracket assembly	197157 (2)	197157 (1)
1A	Relay, wired and mounted on specially-designed bracket	18549 (2)	18549 (1)
2	Screw, self-drilling, for securing relay bracket	195249 (2)	195249 (1)
3	Cable clamp, 3/16	16228 (2)	16228 (1)
4	Wiring diagram label (not shown)	197164 (2)	197164 (1)
5	Brown wiring harness assembly (not shown)	197160 (1)	—
6	Transformer, 40VA, for control unit (not shown)	194808 (1)	—

*Includes components for one control unit and one additional unit.
 **Includes components for each additional (four maximum) non-control unit.

Thermostat Bracket Kit

The thermostat bracket kit (see [Figure 23](#)) is the same as option CM3. Refer to [Table 35](#) for thermostat bracket kit components.

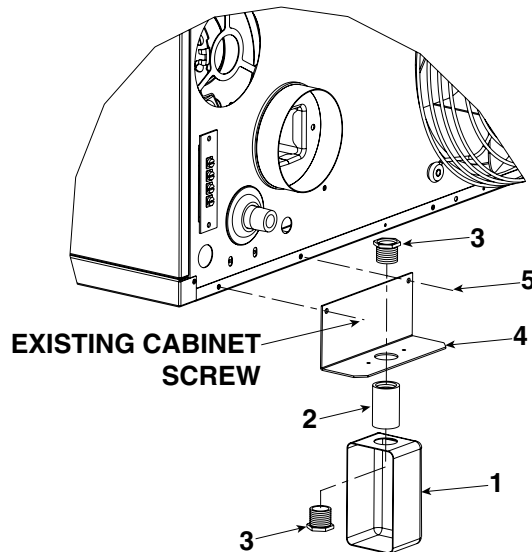


Figure 23. Thermostat Bracket Kit (Refer to [Table 35](#))

NOTE: The left side of the bracket (item 4) is secured to the heater using an existing cabinet screw. The right side is secured using an existing cabinet screw for unit sizes 030–125 (except for model UEAS) or with the screw (item 5) from the kit for unit sizes 150–400 (and all sizes for model UEAS).

Table 35. Thermostat Bracket Kit Components			
Item No.	Component	Thermostat Bracket Kit Package PN	
		197077	
		PN	Quantity
1	Electrical box, 2 x 4	17782	1
2	Coupling, conduit connector, 1/2	7447	1
3	Chase nipple, 1/2	3618	2
4	Bracket	197072	1
5	Screw, self-drilling	195249	1

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