

STEPDOWN TRANSFORMER KIT INSTALLATION FOR GAS-FIRED UNIT HEATERS

OPTIONS CG1, CG4, AND CG5 FOR MODELS UBX, UBXC, UBZ, UDX, UDXC, UDX, AND UEZ

⚠ DANGER ⚠

- Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death.
 - Read the installation, operation, and maintenance instructions thoroughly before installing or servicing this equipment.
 - Installation should be done by a qualified agency in accordance with these instructions and in compliance with all codes and requirements of authorities having jurisdiction.
-
- The stepdown transformer steps down the electric supply power to 115V from 208V, 230V, 460V, or 575V.
 - Refer to the installation manual provided with the unit for important safety information.

KIT COMPONENTS

NOTE: The transformer is shipped in its original carton. All other parts are shipped together in a separate carton.

Ensure that the applicable kit listed in [Table 1](#) or [Table 2](#) and the applicable components listed in [Table 3](#) and [Table 4](#) are available before beginning installation.

Table 1. Stepdown Transformer Kits (Models UBX, UBXC, UBZ, UDX, UDXC, and UDX)

Option (Voltage)	Model	Unit Size (MBTUh)								
		30	45	60, 75	100	125	150, 175	200	225, 250	300, 350, 400
		PN								
CG1 (208V)	UBX, UBXC, UBZ	262851		260922	260926		—			
	UDX, UDXC, UDX	260919	262851		260921		260922	260923		
CG4 (230V or 460V)	UBX, UBXC, UBZ	198505		197153	202978		198505*			
	UDX, UDXC, UDX	197150	198505		197152		197153	197154		
CG5 (575V)	UBX, UBXC, UBZ	198508		1043172	1043174		198508**			
	UDX, UDXC, UDX	1043169	198508		1043171		1043172	1043173		

*Part of voltage option AK7.
**Part of voltage option AK8.

Table 2. Stepdown Transformer Kits (Model UEZ)

Option (Voltage)	Unit Size (MBTUh)			
	55, 85	110	130, 180	260, 310
	PN			
CG1 (208V)	260919	262851	260921	260923
CG4 (230V or 460V)	197150	198505	197152	197154
CG5 (575V)	1043169	198508	1043171	1043173

DO NOT DESTROY. PLEASE READ CAREFULLY. KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

KITS AND KIT COMPONENTS—CONTINUED

Component	Description	PN
Transformer	Stepdown	Refer to Table 4
Bracket	Transformer mounting	1043183
Gasket	Transformer mounting bracket	236155
Capscrew	1/4-20, transformer mounting bracket	010393
Hex nut		007328
Wire nut	73B (Ideal #3-0253)	016354
Conduit connector	Straight (T&B #253)	016199
	90-degree (T&B #XC-290)	001417
Bushing	Anti-short	016358
Conduit clamp	1/2 (Heyco #3328)	016227
Screw	Sheet metal, #10-16 x 1/2	011813
Capscrew	Hex head, 3/8 x 1	032253
Washer	Flat, 3/8	006593
Lockwasher	3/8	005197
Wiring, 14-gauge	With 3/8-inch flexible conduit	—

kVA	Option	Kit PN	Transformer PN
0.25	CG1	260919	260927
	CG4	197150	011279
	CG5	1043169	113556
0.50	CG1	262851	260928
	CG4	198505	011100
	CG5	198508	202056
0.75	CG1	260921	260929
	CG4	197152	011217
	CG5	1043171	112642
1.00	CG1	260922	223462
	CG4	197153	016065
	CG5	1043172	1043167
1.50	CG1	260923	260930
	CG4	197154	197085
	CG5	1043173	260918
2.00	CG1	260926	260931
	CG4	202978	202979
	CG5	1043174	1043168

INSTALLATION

NOTE: The stepdown transformer mounts on the left side of the heater (when facing the front of the heater). Install the transformer before or while suspending the heater. For blower models and if two-point suspension is used for fan models, bracket installation **MUST BE done as part of the suspension process.**

1. See [Figure 1](#) to determine transformer/bracket location:
 - a. For models UDX, UDXC, UDZ, and UEZ, bracket is installed in center 3/8-inch suspension hole on top of heater. If two-point suspension is used, transformer/bracket installation **MUST BE** done as part of the suspension process.
 - b. For models UBX, UBXC, and UBZ, bracket is installed in front suspension point on hanger bar and **MUST BE** done as part of suspension process.

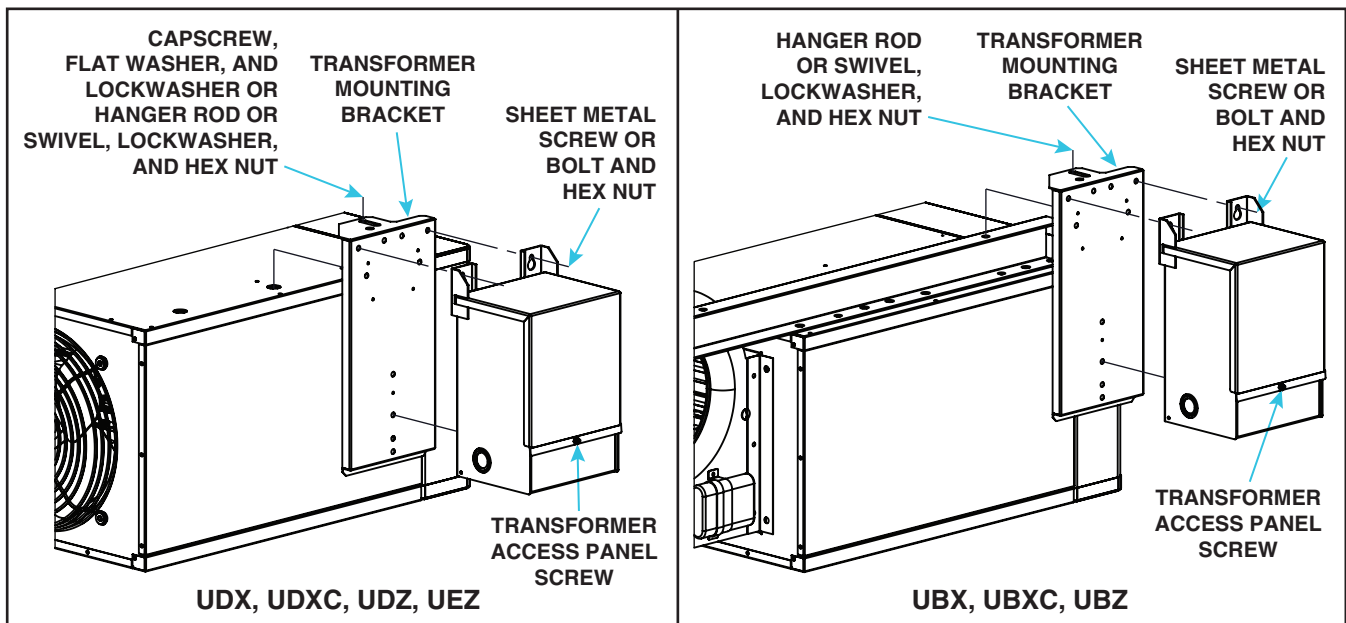


Figure 1. Transformer and Bracket Installation

2. Install gasket on transformer mounting bracket:
 - a. Position gasket at bottom of bracket on back flange that will be against heater cabinet.
 - b. Carefully peel off backing and adhere gasket to bracket.

NOTE: The mounting holes on the transformer mounting bracket are designed to accommodate various transformers. Ensure that the mounting holes on the transformer and bracket are properly aligned. Also, some transformers are secured using sheet metal screw and others are secured using nuts and bolts.

3. Install transformer on mounting bracket (see [Figure 1](#)):
 - a. Align transformer and bracket mounting holes.
 - b. Secure transformer to bracket using hardware from kit—either #10 sheet metal screw(s) or 1/4-20 nut(s) and bolt(s).
4. Secure transformer mounting bracket with transformer to heater (see [Figure 1](#)):
 - a. For models UDX, UDXC, UDZ, and UEZ mounted with four-point suspension, secure bracket using 3/8-inch capscrew, flat washer, and lockwasher from kit.
 - b. For models UDX, UDXC, UDZ, and UEZ mounted with two-point suspension, secure bracket using field-supplied hanger rod or optional swivel and field-supplied 3/8-inch hex nuts and lockwashers.
 - c. For models UBX, UBXC, and UBZ, secure bracket at front suspension point using field-supplied hanger rod or optional swivel and field-supplied 3/8-inch hex nuts and lockwashers.

⚠ CAUTION ⚠

The transformer has primary and secondary voltages—note the wire colors and use care when making transformer wiring connections.

INSTALLATION—CONTINUED

5. Connect transformer wiring:
 - a. Install straight conduit connector on transformer—either at knockout hole in left side or in bottom.
 - b. Remove transformer access panel and run black, white, and green transformer wires through conduit connector installed in step 5a. Re-install transformer access panel.
 - c. Install anti-short bushing on each end of 3/8-inch conduit from kit and run wiring from kit through conduit and bushings.
 - d. Connect black, white, and green wiring in conduit to black, white, and green transformer wires using wire nuts in accordance with wiring diagram on transformer and connect conduit to straight conduit connector on transformer.
 - e. Install 90-degree conduit connector at line voltage inlet on rear of heater so that entrance is facing fan or blower.
 - f. Run 3/8-inch conduit from transformer to bottom rear of heater and across to 90-degree conduit connector. Run wiring in conduit through connector into heater and connect conduit to connector on heater.
 - g. Locate cabinet screw in path of conduit. Remove screw and use it to secure conduit to cabinet using conduit clamp.
 - h. Remove heater access panel and connect wiring from transformer to heater supply wiring in accordance with wiring diagram provided with unit.
6. Complete heater installation in accordance with installation, operation, and maintenance manual provided with unit.

