

HAZARD INTENSITY LEVELS

1. **DANGER:** Failure to comply will result in severe personal injury or death and/or property damage.
2. **WARNING:** Failure to comply could result in severe personal injury or death and/or property damage.
3. **CAUTION:** Failure to comply could result in minor personal injury and/or property damage.



Hanger Kit Options

(kits using threaded suspension points)

Option Installation Form I-OPT-HK
Obsoletes Form RGM 400-HK (Version A)

APPLIES TO: Hanger Kit Options CK3, CK7, CK8, CK9, CK10, CK19

Description/Application/Table of Contents

Description, parts listing, and illustrated instructions are provided for each hanger kit. These kits are designed only for the models and applications described below. See the referenced heater installation manual for suspension dimensions and weights. Suspension of the heater is the responsibility of the installer.

Option Kit	Description	Use with Models	Application	Page	Reference Heater Installation Manual by Model
CK3	Swivel Connections for 1" Pipe for 4-Pt Suspension	(H)EEDU Duct Furnace	To adapt the duct furnace so that it may be suspended from threaded 1" stationary pipes.	2	EEDU - Form RZ-NA 421
CK7	4-Pt Suspension Conversion	F and FE	To add two hanger brackets for changing from standard 2-pt suspension to 4-pt suspension.	2	F - Form RZ-NA 434 FE - Form RZ-NA 436
CK8	Swivel Connections for 2" pipe for 2-Pt Suspension	UDAP, UDAS, F, FE	To adapt a unit with 2-pt suspension so that it may also be suspended from two threaded stationary pipes.	2-3	UDAP - Form RZ-NA I-UD UDAS - Form RZ-NA I-UD F - Form RZ-NA 434 FE - Form RZ-NA 436
CK9	4-Pt Suspension Conversion Plus Swivel Connections	F and FE	To add two hanger brackets to change from standard 2-pt suspension to 4-pt suspension and adapt the unit so that it may be suspended from four threaded 1" stationary pipes.	4-5	F - Form RZ-NA 434 FE - Form RZ-NA 436
CK10	Swivel Connectors for 1" Pipe for 4-Pt Suspension	UDAP, UDAS, B, BE, OH, OB, RA, RAD, and F and FE with 4-pt suspension	To adapt a unit with 4-pt suspension so that it may be suspended from four threaded 1" stationary pipes.	5-6	UDAP - Form RZ-NA I-UD UDAS - Form RZ-NA I-UD B and F - Form RZ-NA 434 BE and FE - Form RZ-NA 436 OH and OB - Form RZ-NA 417 RA and RAD - Form RZ-NA 461 RA and RAD - Form RZ-NA 464
CK19	Alternate Suspension Points providing nearly equal loading at four points	B and BE	Suitable for units equipped with isolation vibration suspension and or seismic protection with longer than 10" rod hangers. Option CK19 changes the suspension points and suspension dimensions.	6-7	B - Form RZ-NA 434 BE - Form RZ-NA 436

Other Hanger Kits :

Ceiling Bracket for Unit Heaters - Option CK22 is available for small sizes of Models UDAP and UDAS. See Supplemental Installation Form RZ-NA I-UD-CS.

Infrared Models - Options CK11-CK18 are not included in this form. Options CK11-CK18 are hanging chain and turnbuckle kits for tubular infrared heaters. For parts lists and instructions for hanger and turnbuckle kits, see Supplemental Installation Form RZ-NA 456-HK and/or RZ-NA 452/456-TK.

Hanging chain for infrared high intensity heaters is Option UE1 or UE2. See Heater Installation Manual, Form RZ-NA 450.

WARNING: The instructions in this sheet are written for adding new suspension points or preparing a heater for suspension prior to installation. If your heater is installed, for your safety, turn off the gas and the electric before adding or changing suspension. Follow the instructions on the heater to restart. Check for proper operation.

Option Kits and Instructions

OPTION CK3 - Swivel Connectors for Model Series EEDU

CAUTION: Check to be sure that all swivels turn freely.

This option is designed to add swivel connections to a Model (H)EEDU duct furnace to suspend a single furnace from four 1" threaded stationary pipes.

Option CK3 (Package P/N 57959) includes:

Qty	Description	P/N
4	Swivel Connector Assy	9557

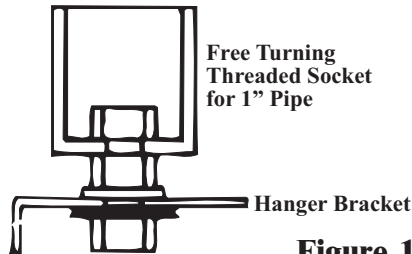


Figure 1


Instructions

1. Remove lockwasher and nut from swivel connector.
2. Put bolt down through hole in the hanger bracket.
3. Attach securely with nut and lockwasher
4. Repeat on all hanger brackets.

OPTION CK7 - 4-Point Suspension for Models F and FE

This option is designed to convert a Model F or FE with standard 2-point suspension to 4-point suspension.

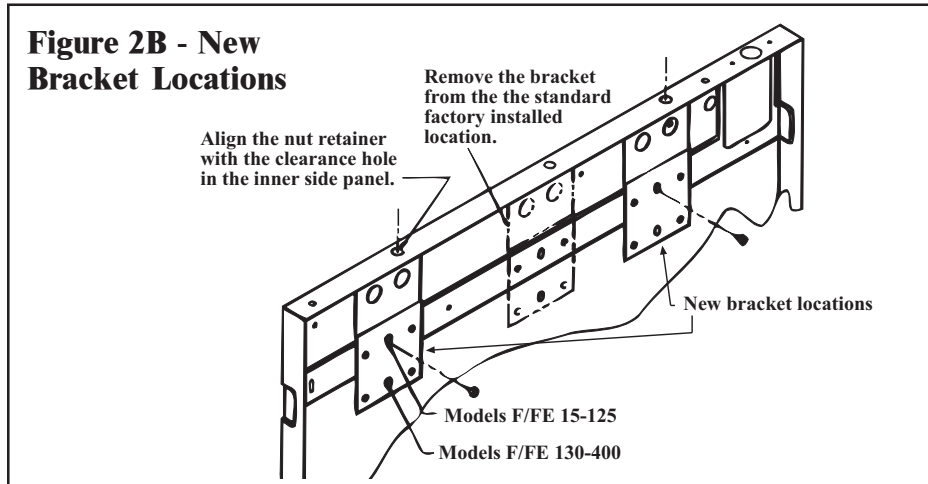
Option CK7 (Package P/N 98508) includes:

Figure 2A - Hanger Kit Option CK7	Qty	Description	P/N
	2	Hanger Bracket Assembly	96386

Installation Instructions for Option CK7

Tools Required - 5/16" Nut Driver

1. Remove the heater from the carton.
Remove the wooden crate bottom from the bottom of the heater.
Remove one of the heater outer side panels.
2. **Remove the Factory-Installed Hanger Bracket Assembly**
Remove the two screws that are holding the factory-installed hanger bracket assembly to the heater. Re-insert the two screws (without the hanger bracket) into the same holes in the heater inner side panel.
3. Determine the new locations for the two hanger bracket assemblies (one from the kit and the one removed in Step 2). See Figure 2B.



4. **Install Hanger Bracket Assemblies** - Remove the screw from the inner side panel at one of the new locations. Position one of the hanger bracket assemblies

so that the nut retainer is aligned with the clearance hole in the top of the side panel. Insert the screw removed from the side panel through the center slotted hole in the hanger bracket. Adjust the bracket so that it is tight against the top of the heater. Tighten screw securely.

Following the same procedure, attach the other hanger bracket assembly at the second location. Replace the outer side panel.


5. Remove the outer side panel from the opposite side and repeat Steps 2-4 on that side.
6. Installation of the 4-point suspension hanger kit is complete. Since the crate bottom has been removed, protect the bottom of the heater with plywood or other appropriate material. If the bottom is not supported, the bottom access panel could be damaged.

Follow the instructions in the heater installation manual to complete the installation of your heater.

OPTION CK8 - 2-P Suspension with Swivel Connectors - Models UDAP, UDAS, F, and FE

The purpose of this option is to adapt a Model F/FE heater with standard 2-point suspension so that it can be suspended using two 1", threaded stationary pipes.

Option CK8 (Package P/N 98509) includes:

Figure 3A - Hanger Kit, Option CK8	Qty	Description	P/N
	2	Swivel Connector Assy	17627
	2	3/8" Lock Washer	5197

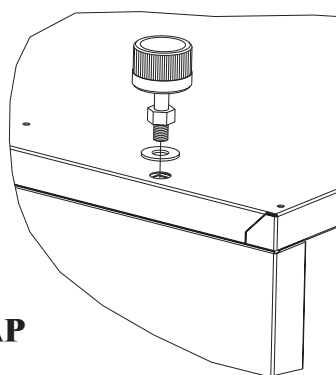
Installation Instructions for Option CK8

Tools Required - 9/16" Open-End Wrench

Models UDAP and UDAS (Figure 3B)

1. Locate the threaded suspension holes in the top of the heater cabinet that are used for 2-pt suspension (center holes).
2. Place a lockwasher over each hole.
3. Screw the swivel hanger connector assembly into the heater's cage nut retainer. (The lockwasher must be between the top panel and the swivel hanger connector assembly.) Tighten firmly.

Lock the swivel connector to the heater. The connector is threaded for hanging from a 1" pipe.

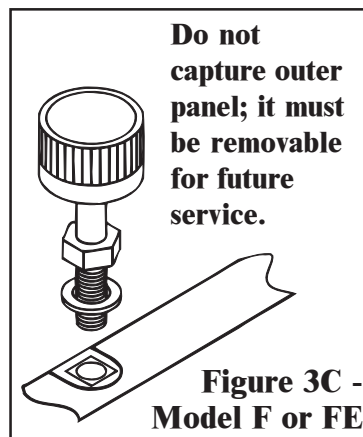


**Figure 3B -
Model UDAP
or UDAS**

Models F and FE (Figures 3C & 3D)

1. Locate the two hanger bracket holes in the top of the heater cabinet.
2. Place a lockwasher over the hole, being careful not to catch the cutout portion of the painted side panel. The outer panel must remain removable for future service. See Figure 3C.
3. Screw the swivel hanger connector assembly into the hanger bracket. (The lockwasher must be between the inner heater side panel and the swivel hanger connector assembly). Tighten firmly. See Figure 3D.

Do not capture outer panel; it must be removable for future service.

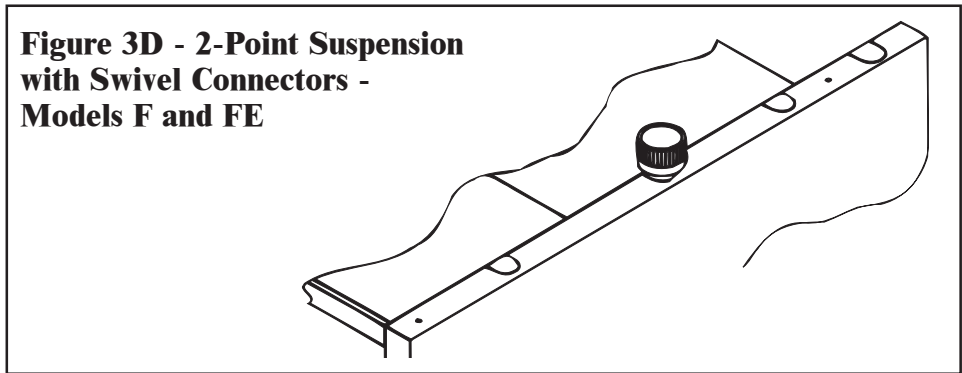


**Figure 3C -
Model F or FE**

Hanger Option Kits and Instructions (cont'd)

OPTION CK8 - 2-Point Suspension with Swivel Connectors - Models UDAP, UDAS, F, and FE (cont'd)

Models F and FE (cont'd)



Models UDAP, UDAS, F and FE

4. Repeat Steps 2 and 3 at the other suspension point.
5. Installation of the 2-point swivel connection kit is complete. Follow the instructions in the heater installation manual to complete installation of the heater.

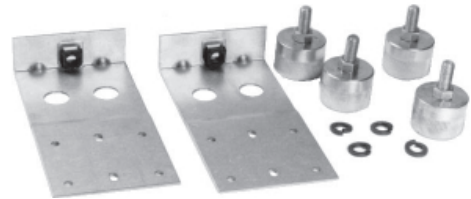
OPTION CK9 - 4-Point Suspension with Swivel Connectors - Models F/FE only

CAUTION: Check to be sure that all swivels turn freely.

This option is designed to convert a Model F or FE with standard 2-point suspension to 4-point suspension with swivel connectors.

Option CK9 (Package P/N 98510) includes:

Qty	Description	P/N
2	Hanger Bracket Assembly	98386
4	Swivel Connector Assembly	17627
4	3/8" Lock Washer	5197

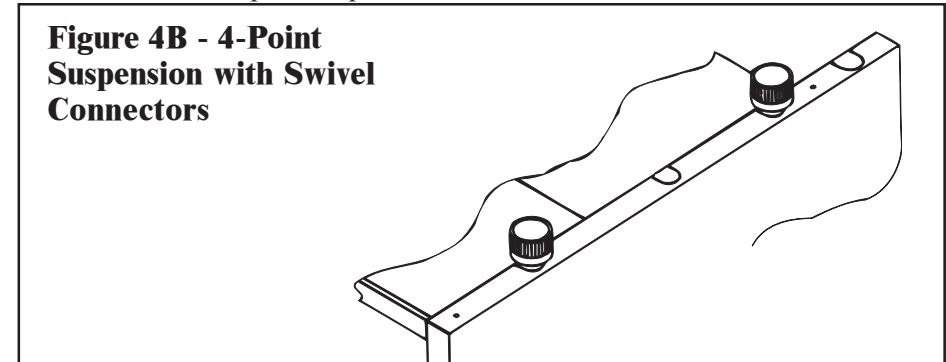


**Figure 4A - Hanger Kit,
Option CK9**

Installation Instructions for Option CK9

Tools Required - 9/16" Open-End Wrench; 5/16" Nut Driver

1. **Convert to 4-point Suspension** - Refer to instructions for Option CK7 on pages 2-3. Follow Steps 1 through 5 to convert the heater to 4-point suspension.
2. **Install Swivel Connectors** - Refer to instructions for Option CK8 on page 3. Follow Model F and FE Steps 1 through 3 to install the swivel connection. Attach a swivel at each suspension point.



**Figure 4B - 4-Point
Suspension with Swivel
Connectors**

**OPTION CK10 -
4-Point
Suspension with
Swivel
Connectors
(Models UDAP,
UDAS; F, FE, B,
BE; OH, OB, RA,
RAD) - See
paragraph for
specific
applications)**

CAUTION: Check to be sure that all swivels turn freely.

- Installation of the 4-point suspension kit with swivel connections is complete. Since the crate bottom has been removed, protect the bottom of the heater with plywood or other appropriate material. If the bottom is not supported, the bottom access panel could be damaged.

Follow the instructions in the heater installation manual to complete the installation of our heater.

This option is designed to add swivel connectors to a Model F or FE unit heater that is already equipped with optional 4-point suspension or to a Model UDAP, UDAS, B, BE, OH, OB, RA or RAD unit heater that is standardly equipped with 4-point suspension. The four swivel connections allow the heater to be suspended from four 1", threaded stationary pipes.

Option CK10 (Package P/N 98511) for 3/8" hanger rods/brackets includes:

Qty	Description	P/N
4	Swivel Connector Assy	17627
4	3/8" Lock Washer	5197




Figure 5A - Hanger Kit, P/N 98511, for 3/8" Hanger Brackets

Applications: All sizes of Models UDAP/UDAS; all sizes of Models F/B/FE/BE; all sizes of Models OH/OB manufactured prior to 10/94; and Models RA/RAD 110/140/235 manufactured prior to 10/94

Option CK10 (Package P/N 134477) for 1/2" hanger rods/brackets includes:

Qty	Description	P/N
4	Swivel Connector Assy	134476
4	1/2" Lock Washer	111306




Figure 5B - Hanger Kit, P/N 134477 for 1/2" Hanger Brackets

Applications: All sizes of Models OH/OB/RA/RAD manufactured beginning 10/94 (NOTE: Models RA/RAD 350 manufactured prior to 10/94 have 7/16" hanger brackets. A swivel hanger kit is not available for RA/RAD 350 with 7/16" hanger brackets.)

Installation Instructions for Option CK10

Models UDAS, UDAP, F, FE, B, BE - Follow the same instructions as for Option CK8, pages 3-4. Repeat the process at all four hanger bracket locations.

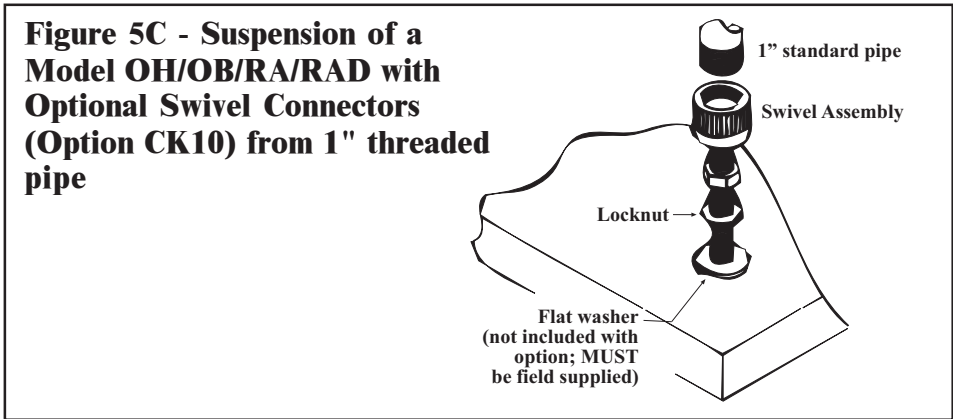
Models OH, OB, RA, RAD - Four field-supplied 3/8" or 1/2" flat washers are required.

- Place a flat washer at the threaded suspension point as illustrated in Figure 5C.
- Put a lock washer on the swivel assembly and screw the swivel connector into the suspension point. Tighten firmly.
- Repeat the procedure at the other three suspension points.

Installation of the four swivel connectors is complete. Follow the instructions in the heater installation manual to complete the installation.

Option Kits and Instructions (cont'd)

Installation Instructions for Opt CK10 (cont'd)



OPTION CK19 - Alternative 4-Pt Suspension Points for Blower Units (Models B/BE)

This option is designed so that each suspension point carries a nearly equal load.

NOTE: Suspension point dimensions change; see Figure 6B.

Option CK19 (Package P/N 165742) includes:

Qty	Description	P/N
1	Right Side Hanger Bar	162829
1	Left Side Hanger Bar	162830
4	HHD Tap Bolts 3/8-16NCX 1-1/2, #5	114350
8	3/8" Lock Washer	5197

Figure 6B - Hanger Kit for Blower Models B and BE, Option CK19

Installation Instructions for Option CK19

Tools Required - 9/16" Open-End Wrench

1. Locate the four hanger bracket holes in the top of the heater cabinet (two on each side).
2. On the side of the heater where the electrical supply connects, carefully place two lock washers over each hanger bracket hole. From the kit, select the hanger bar with the wider flange and the cutout hole in the center. Position the hanger bar along the top edge of the heater on top of the washers. (Two washers are required between the heater and the hanger bar to allow for removal of the side panel.) Attach the hanger bar with two of the bolts, securing them to the hanger bracket weld nut. See Figure 6C.
3. Attach the left side hanger bar the same way using the remaining four washers and two bolts.
4. The heater is ready for suspension from 3/8" threaded hanger rods. Use field-supplied hardware to attach the hanger rods as illustrated in Figure 6D.

Figure 6C - Suspension Dimensions for Model B/BE Heater with Hanger Kit Option CK19

Size	A		B	
	inches	mm	inches	mm
25-50	11-7/8	302	9-1/8	232
75	13-7/8	352	11-1/8	283
100	15-7/8	403	13-1/8	333
125	21-5/8	549	18-7/8	479
165	18-5/8	473	15-7/8	403
200	21-5/8	549	18-7/8	479
250-300	27-1/8	689	24-3/8	619
400	35-3/8	899	32-5/8	829

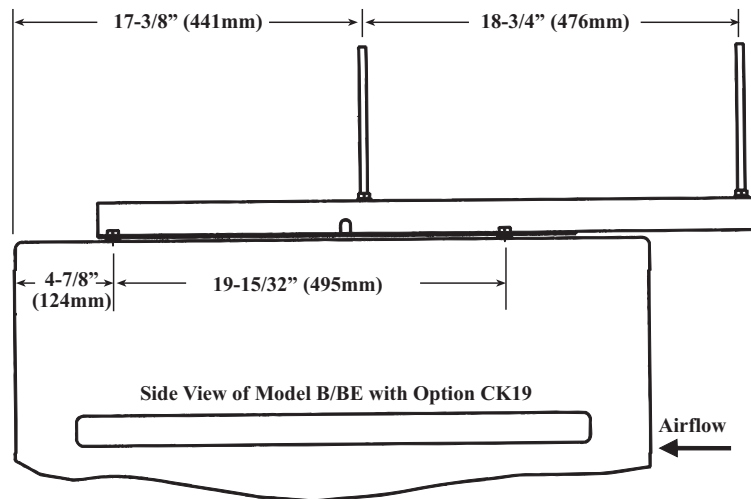
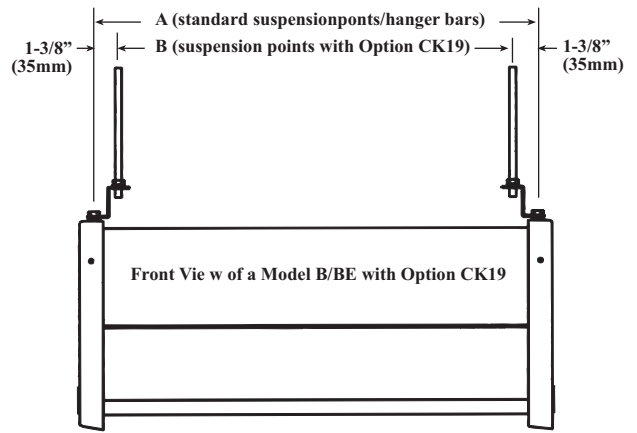
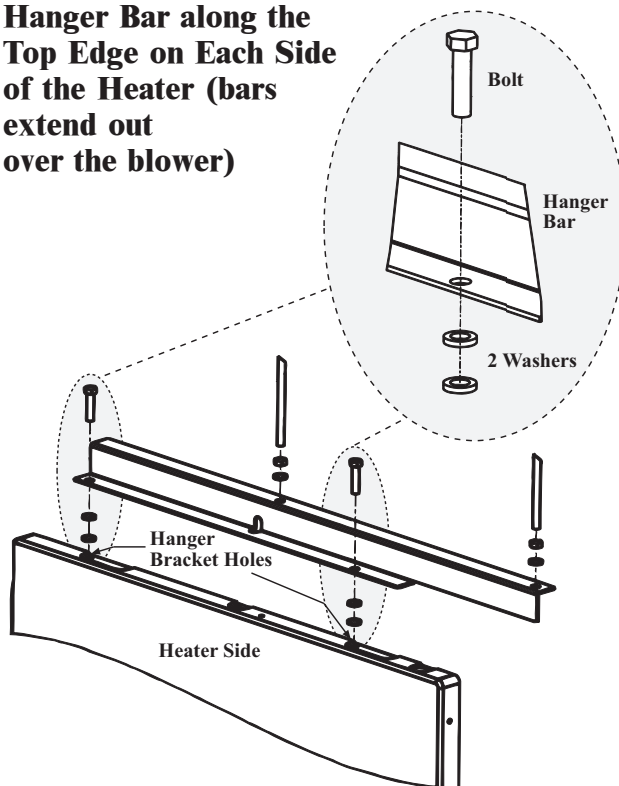


Figure 6C - Attach a Hanger Bar along the Top Edge on Each Side of the Heater (bars extend out over the blower)



View of hanger bar hardware with heater side panel removed (for illustration only; do not remove side panel to install)

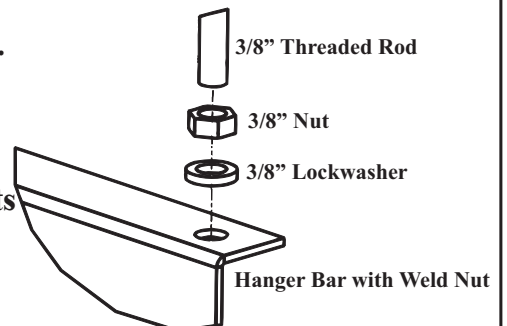


Sequence:

- Bolt**
- Hanger Bar**
- 2 Washers**
- Heater Top Panel**
- Hanger Bracket Nut (behind the heater side panel; do not remove side panel)**

Two washers (from the kit) are required between the hanger bar and the heater to provide clearance for removing the heater side panel for service.

Figure 6D - Use threaded hanger rods to suspend the heater from the hanger bar suspension points (hardware and rods are field supplied)



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3/02 Form RZ-NA I-OPT-HK