

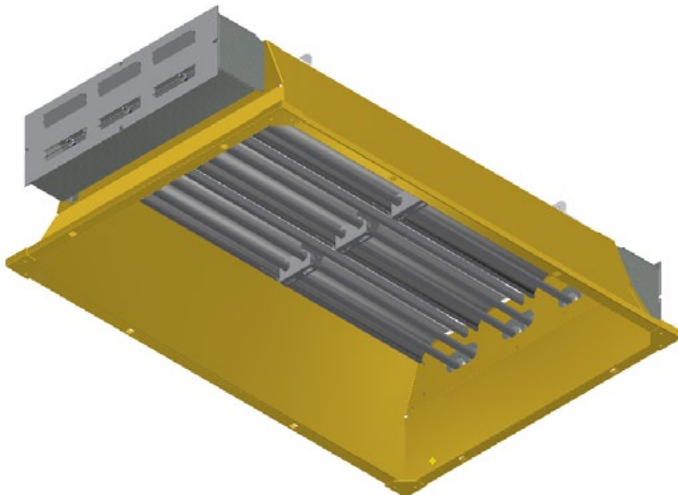
Flat Panel Emitter Replacement Element Guide For CH, MR and FHK Series

The flat panel emitter is a total element replacement for metal sheath elements.

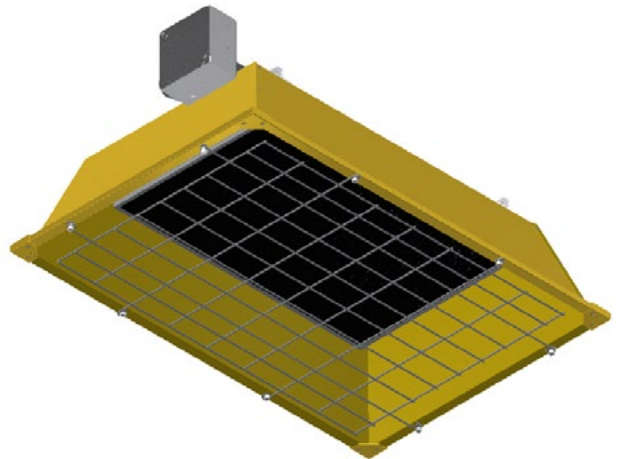
- All metal sheath elements and reflectors are replaced by one complete unit including:
- The flat panel emitter.
- All mounting hardware to convert the metal sheath elements to the flat panel emitter.
- All hardware and components for power connection requirements.
- A heavy-duty wire guard for units that do not have one as standard equipment.

All flat panel emitter replacement elements except (CH-4 and MR-4) come fully assembled and wired for ease of field conversion.

METAL SHEATH REPRESENTATION





FLAT PANEL EMITTER REPRESENTATION



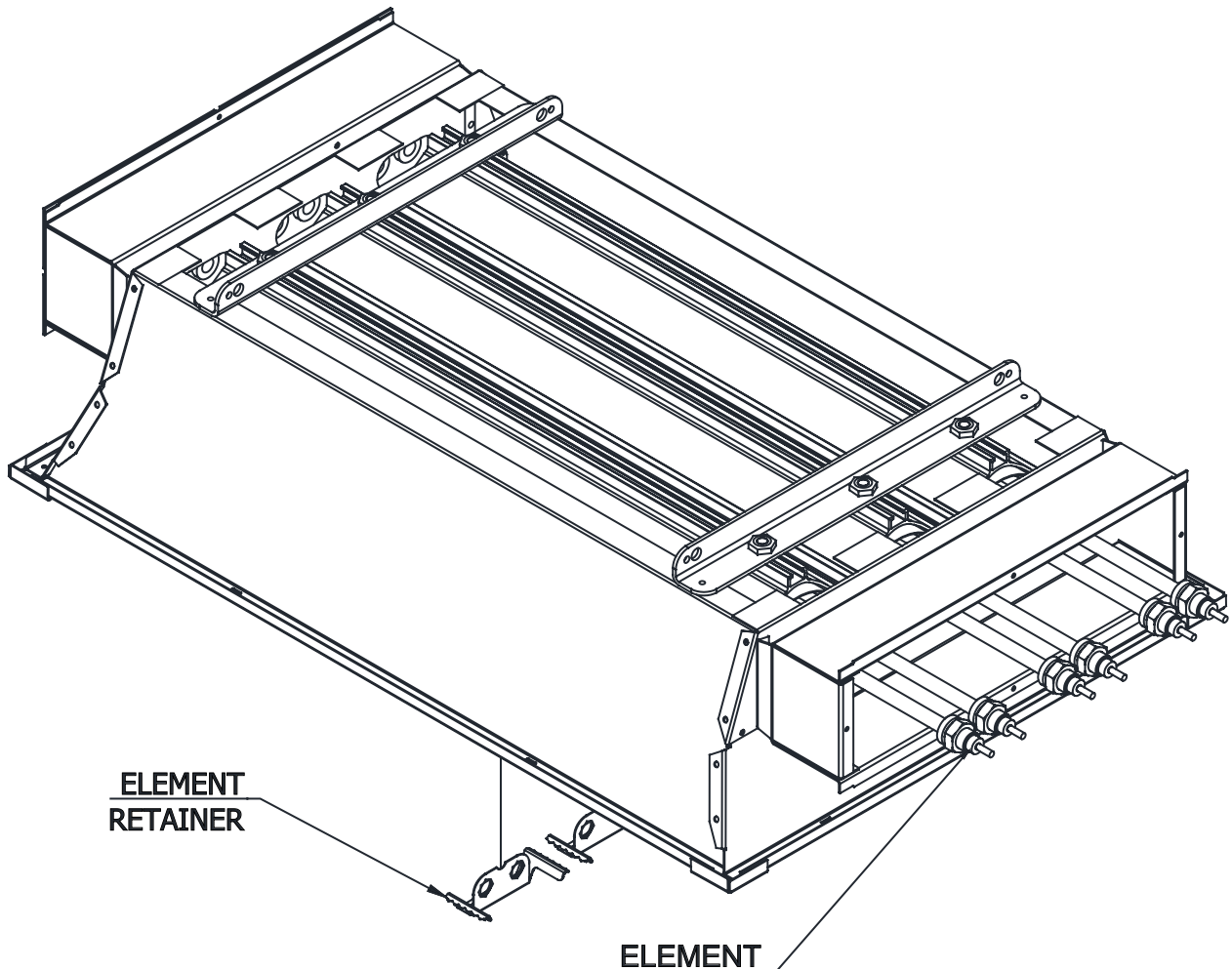
Preparation of Existing CH or MR series For installing Flat Panel Emitter

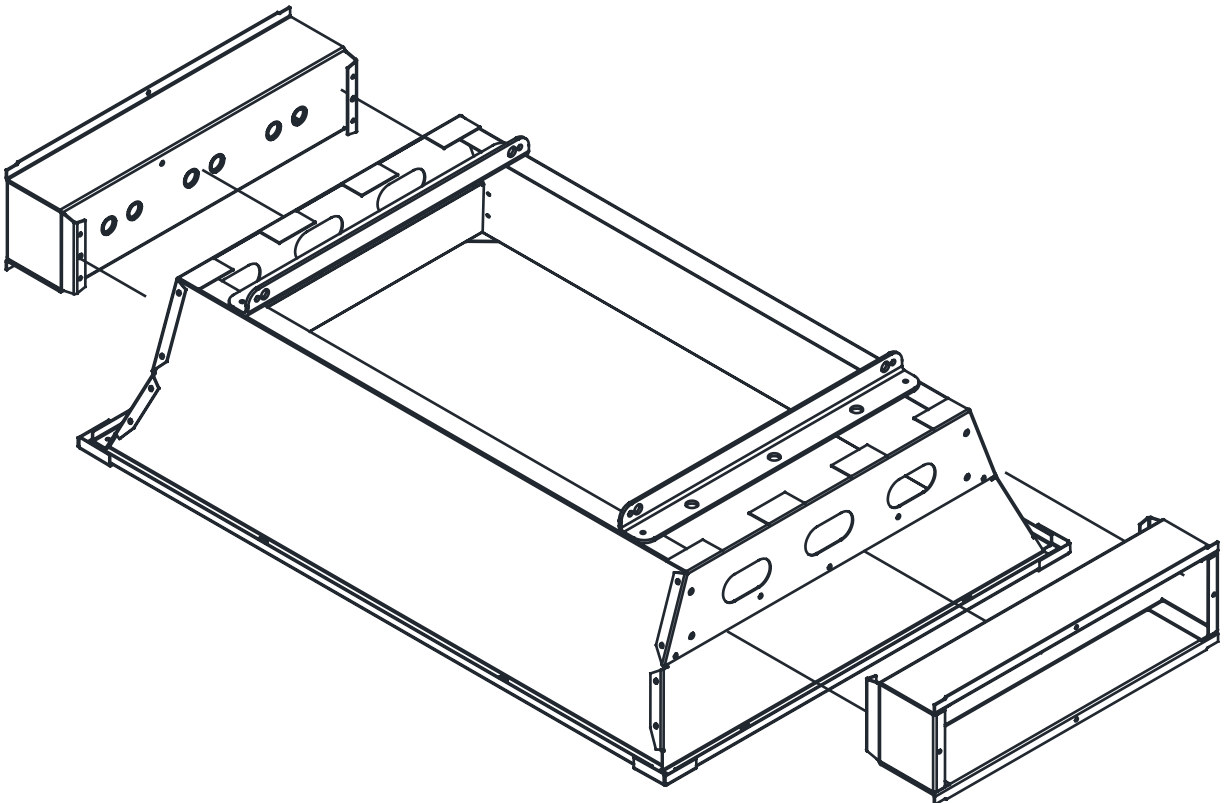
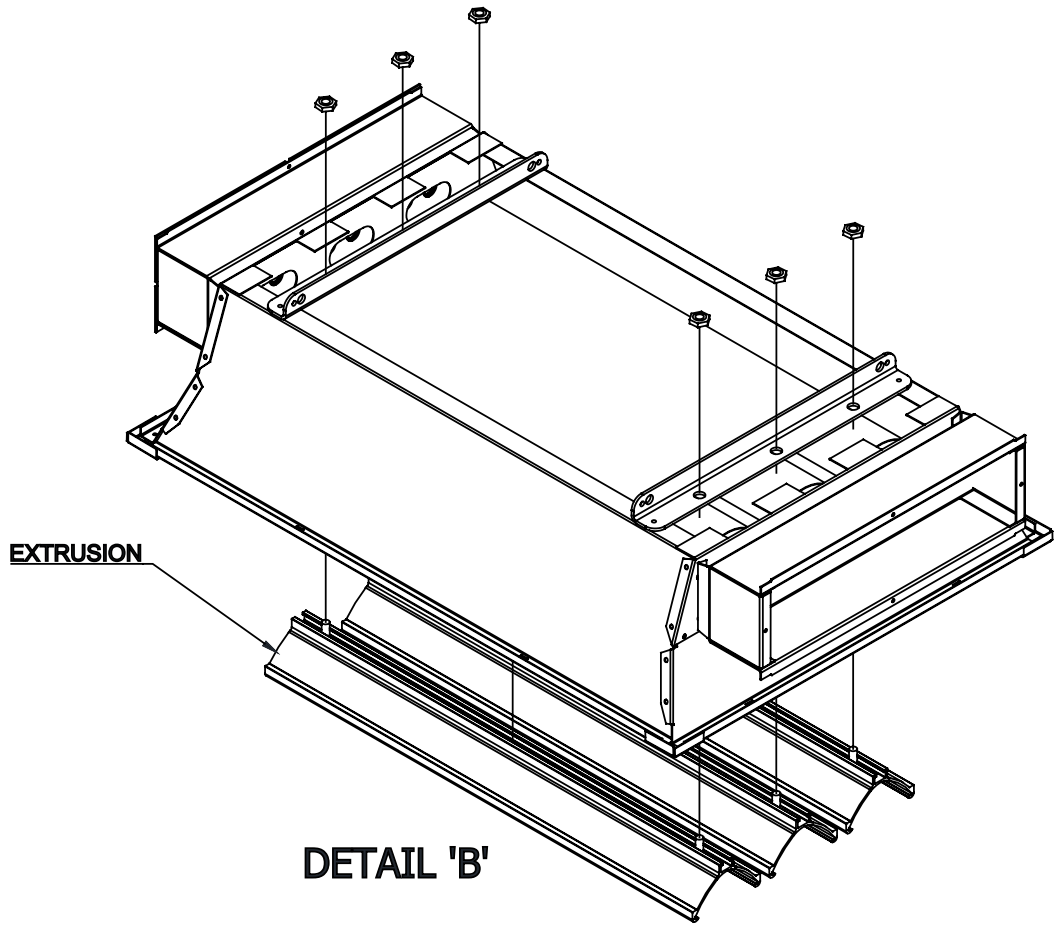
This procedure applies to all CH and MR series metal sheath heaters.

1. Remove existing u-shaped or straight metal sheath elements and element retaining clips from heater assembly. See Detail 'A'.
2. Remove reflector/extrusion assembly by removing the 3/8" nuts on the back of the mounting channel. See Detail 'B'.
3. Remove the terminal box or boxes (2 on MR series) by removing the sheet metal screws on the inside of the housing. See Detail 'C'.

	⚠ WARNING
	ELECTRICAL SHOCK HAZARD
	<ul style="list-style-type: none">• Serious injury or death may occur.• Disconnect heaters from electrical supply before replacing parts.

DETAIL 'A'

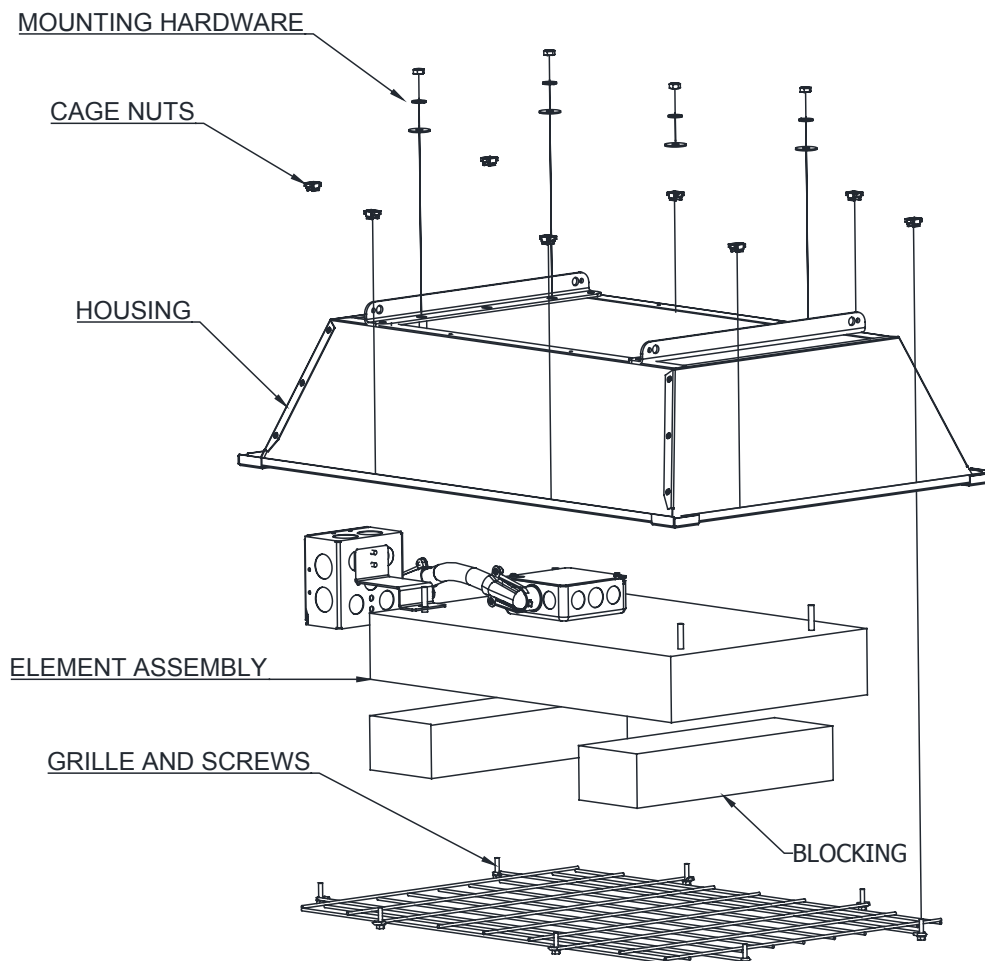




DETAIL 'C'

Installing the Flat Panel Emitter CH & MR-6,-13 AND 27

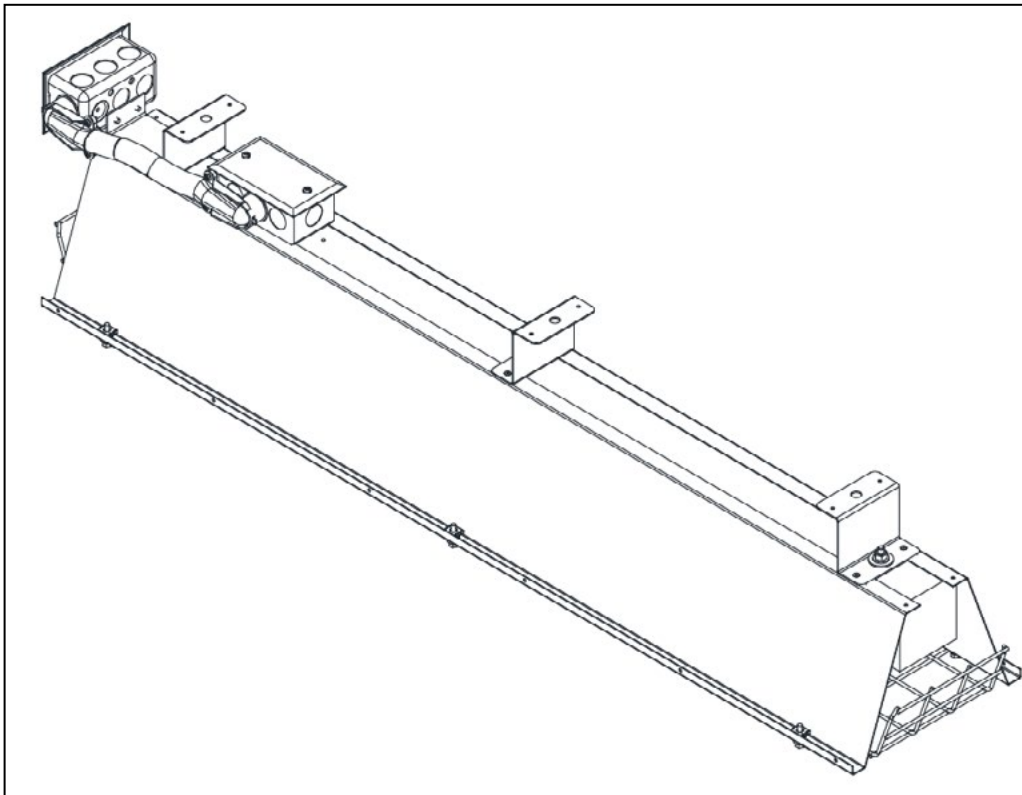
1. Install cage nuts into housing for grille attachment.
2. For ease of assembly, rest the element assembly on blocks high enough to allow the housing to set down over the element assembly and not rest on the work surface. Be careful to not damage the front of the Flat Panel Emitter.
3. Place the housing over the element assembly while feeding the conduit and connection box through the housing.
4. Once the housing is in place, secure the housing and connection box bracket to the element assembly with the hardware provided. Be sure to use a flat washer and split washer on each stud.
5. Mount the heavy duty wire guard to the front of the housing using the screws provided.
Note: The CH/MR-27 wire guard is a hinged sectional guard. The short section of the wire guard should be positioned towards the center of the heater.
6. Hang the heater in the same manner as originally installed.
7. Wire heater as need referring to the wiring diagram on the front of the wiring box.
8. Restore power.



Installing the Flat Panel Emitter CH & MR-4

1. Remove extension ring from element assembly. This must be done to allow insertion between side baffles.
2. For ease of assembly, rest the element assembly on blocks high enough to allow the housing to set down over the element assembly and not rest on the work surface. Be careful to not damage the front of the Flat Panel Emitter.
3. Place housing over the element assembly, mount the 2 x 4 outlet box and bracket over the mounting stud and secure all to the housing with the hardware provided.
4. Attach lead wires to element termination with supplied hardware, making certain connections are tight.
5. Replace extension ring on element assembly.
6. Connect conduit and connector to extension ring.
7. Feed lead wires through conduit and secure conduit to 2 x 4 outlet box.
8. Install cage nuts into housing for grille attachment.
9. Mount the heavy duty wire guard to the front of the housing using the screws provided.
10. Hang the heater in the same manner as originally installed.
11. Restore power.


Typical CH or MR-4 with Flat Panel Emitter

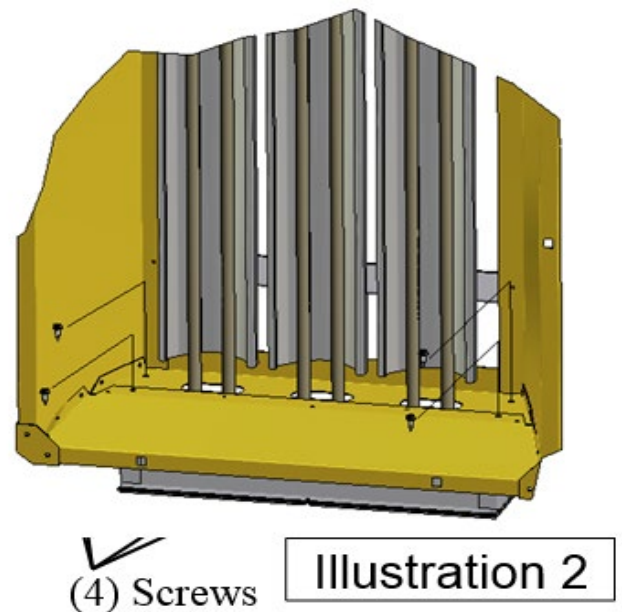
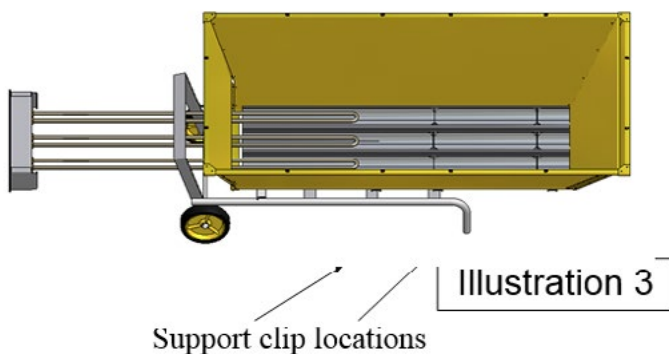
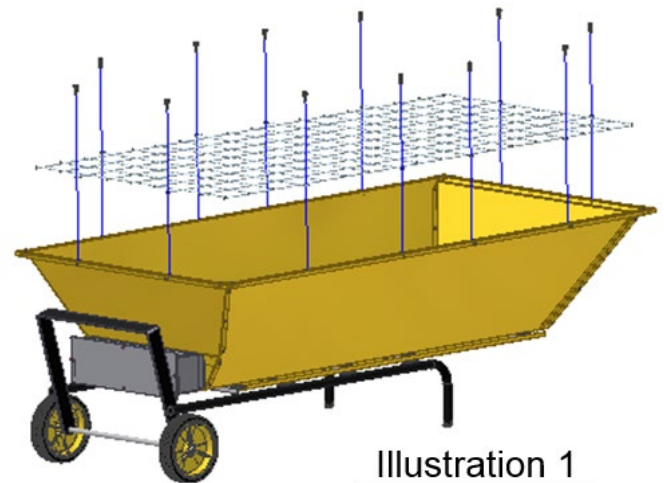


Preparation of Existing FHK-6 AND FHK-13 series For installing Flat Panel Emitter

1. DISCONNECT POWER FROM THE ELECTRICAL SUPPLY CABLE OF THE PORTABLE HEATER BEING REPAIRED.

2. Position heater with reflector opening pointing UP.
3. Remove the wire guard from the heater to access the fasteners that attach the terminal box. Remove and save the (12) screws shown in Illustration 1 with a 5/16" nut driver.
4. Remove and discard the (4) screws that attach the terminal box to the heater, with a 1/4" nut driver. See Illustration 2.
5. Grasp terminal box assembly and firmly pull in the direction shown in Illustration 3. The elements have been fed through some support clips inside the heater housing. These clips will cause some drag or resistance to removal. There will be some unpleasant noise as the elements slide through the clips.
6. Discard all.

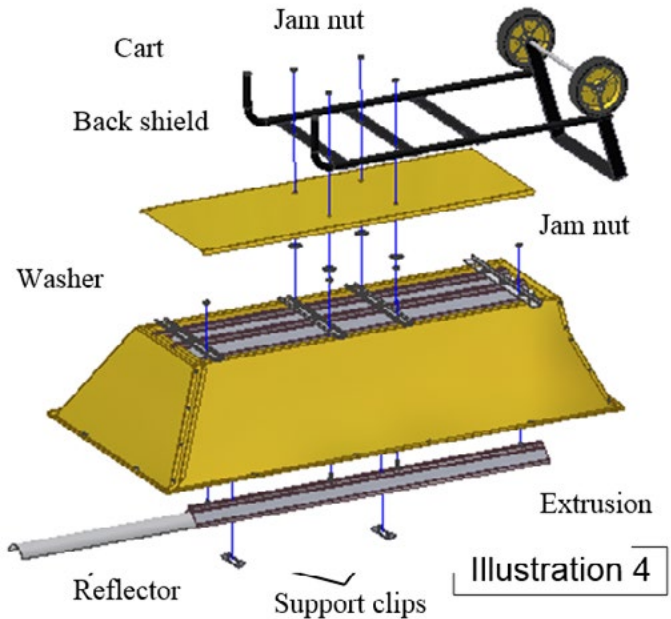
	WARNING
	<p style="text-align: center; color: blue;">ELECTRICAL SHOCK HAZARD</p> <ul style="list-style-type: none"> Serious injury or death may occur. Disconnect heaters from electrical supply before replacing parts.



REMOVING REFLECTORS AND EXTRUSION

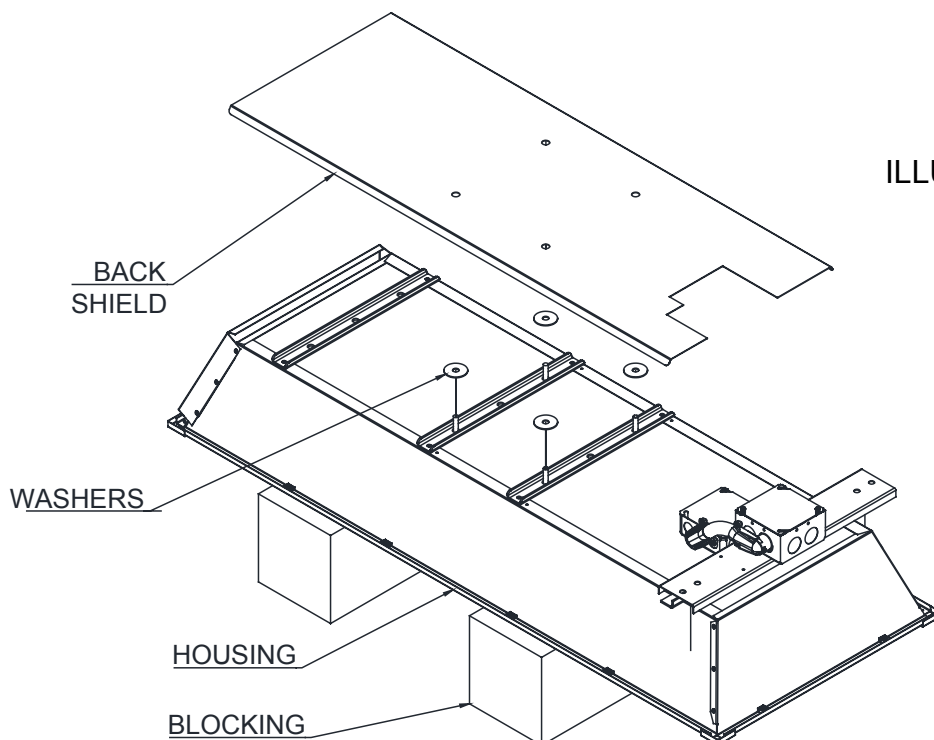
To remove the reflector and extrusion :

1. Lay heater face down and remove the cart from the heater by taking off the (4) jam nuts as shown in Illustration 4.
2. Lift the back shield and (4) washers off the heater.
3. Remove the (2) support clips from the front of the reflector.
4. Remove (4) jam nuts that secure the extrusion to the housing. The extrusion and reflector will now come out of the housing.
5. Discard all.
6. The housing is now ready for installation of the Flat Panel Emitter.



INSTALLING THE FLAT PANEL EMITTER

1. For ease of assembly, rest the element assembly on blocks high enough to allow the housing to set down over the element assembly and not rest on the work surface. Be careful to not damage the front of the Flat Panel Emitter.
2. Place the housing over the element assembly while feeding the conduit , connection box and mounting bracket through the housing.
3. Install the (4) washers and back shield as shown in Illustration 5.



4. Re-install cart assembly as shown in Illustration 6. Be sure that the connection box and mounting bracket are on the back side of the cart. Secure the cart to the housing using the 1/4" hardware provided. Secure the mounting bracket to the cart frame using the u-bolts and 5/16" nuts and washers.

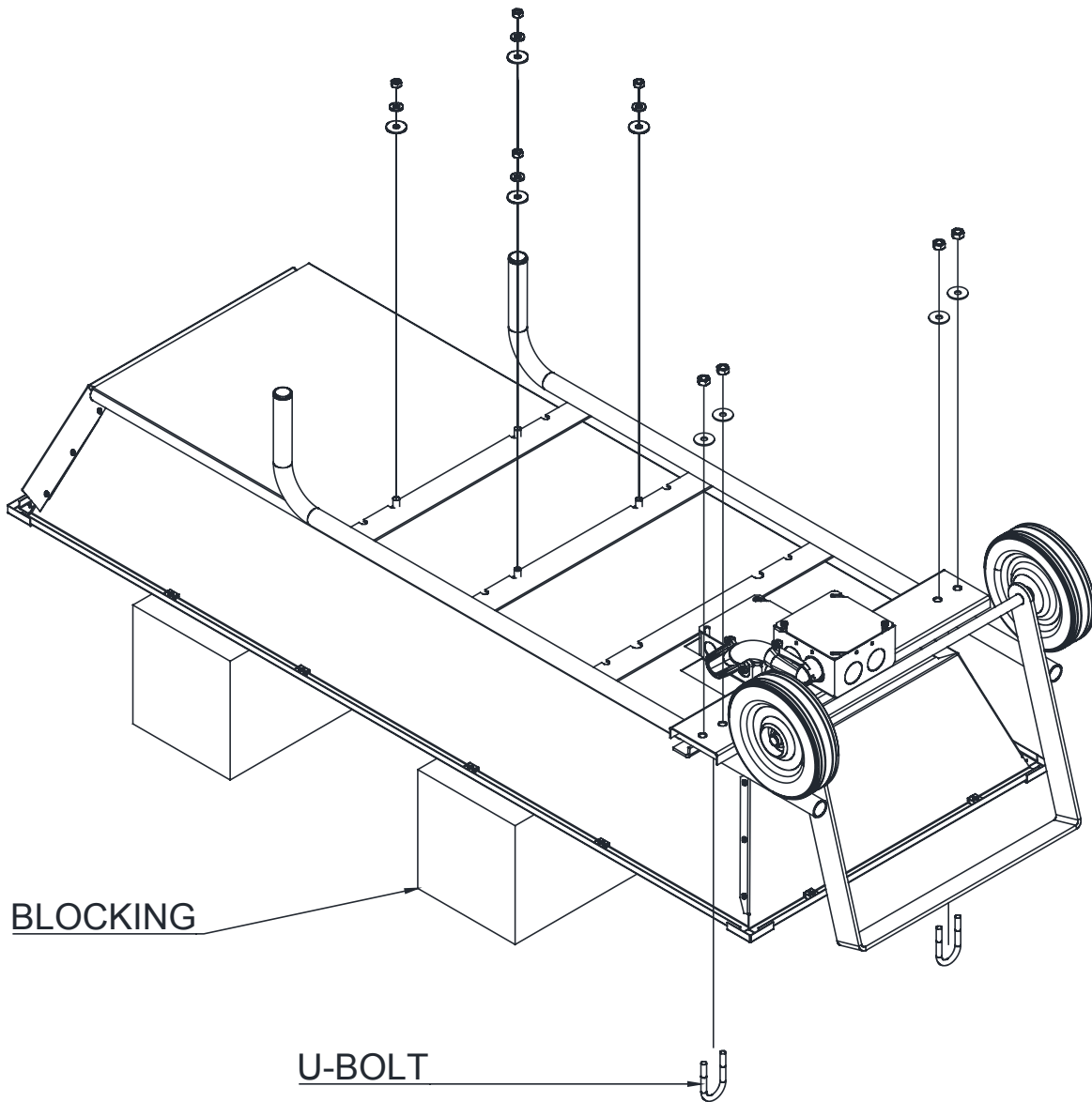


ILLUSTRATION 6

5. After installing the cart, turn the complete assembly over and install the wire guard using the original screws. **DO NOT OPERATE ANY FSP-SERIES WITHOUT THE WIRE GUARD INSTALLED.**
6. Install cable or conduit as previously used on the heater. For additional wiring space, an extension ring may be used on the connection box.
7. Restore power.

