



TPI Corporation
P.O. BOX 4973
JOHNSON CITY, TN 37602
www.tpicorp.com



TO-SK-1

Tip-Over Switch Kit For FSP-43 AND FSP-95



	⚠ WARNING
	<p>IMPORTANT SAFETY INFORMATION INSIDE</p> <ul style="list-style-type: none">• Serious injury or death possible• Read, understand, and follow all safety information and instructions in this manual before using or servicing this product.

REFER TO COMPLETE INDEX OF
INFORMATION ON
PAGE 2





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ATTENTION:

The table to the right provides definitions of the signal words that can be found throughout this manual. These signal words are used to express the severity of the hazard at hand. The signal words are generally used in conjunction with safety symbols that correspond to the text for that particular hazard. As you read this manual, refer back to this table when you are unsure of the signal word definition.

Signal Word Definitions

 DANGER	DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	WARNING: Indicates an imminently hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	CAUTION: Indicates an imminently hazardous situation which, if not avoided, may result in death or serious injury.
 CAUTION	CAUTION: Indicates an imminently hazardous situation which, if not avoided, may result in death or serious injury.
As defined in ANSI Z535-4-2002	

 **WARNING**

**ELECTRICAL SHOCK HAZARD
FIRE HAZARD**

- Serious injury or death may occur.
- Not for indoor residential use.
- Do not use outdoors in wet conditions and in unprotected locations.
- Do not use in wash down applications.

The Fostoria TO-SK-1 Tip-Over Switch is designed to provide a safe way to quickly shut off power to FSP-43 and FSP-95 Series heaters if they are accidentally tipped over. It mounts directly to the terminal box on these cart heaters.

SPECIFICATIONS

- Use with voltages up to 600 VAC.
- 50 amps maximum load.
- 50/60 Hz rating.
- Can be used in single and three phase applications.
- The power switch illuminates when in use.

INSTALLATION

⚠ WARNING

ELECTRICAL SHOCK HAZARD

- **Serious injury or death may occur.**
- **Disconnect from electrical supply before installing or servicing this product.**
- **Make certain the power source conforms to specifications on heater label.**
- **Always securely connect green wire from heater to bonding (ground) wire from electrical supply, not to a live or "hot" conductor.**
- **Follow state, local and national electric codes (NEC).**



To install the TO-SK-1 on the FSP-43 AND FSP-95 models:

1. Remove (2) screws and cover from bottom 4x4 field wiring box. Retain the screws. Loosen conduit from bottom 4x4 field wiring box. See illustration 1.
2. Attach TO-SK-1 to the terminal box by removing screws and lid from TO-SK-1 enclosure, then attaching the TO-SK-1 to the 4x4 field wiring box. Use the screws that were removed from the 4x4 wiring box and the two lockwashers supplied. See illustrations 2 and 3.
3. Re-attach the conduit to the TO-SK-1.
4. Wire the heater to the load side of the TO-SK-1 contactor, see heater wiring diagram for single or three phase connection. Connect designated transformer leadwire to pigtail on L1 of contactor (see Wiring Diagram A). See heater data label for correct line voltage.
5. Connect field wiring to line side of contactor. Secure ground wire to grounding lug.
6. Close and secure lid on enclosure.
7. Connect to appropriate power source.

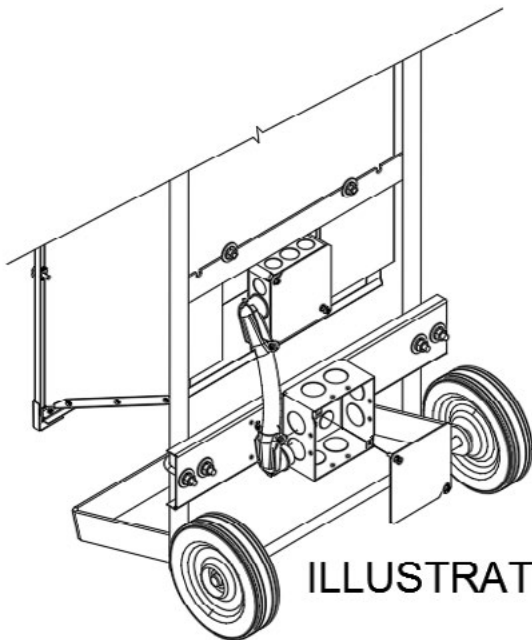


ILLUSTRATION 1

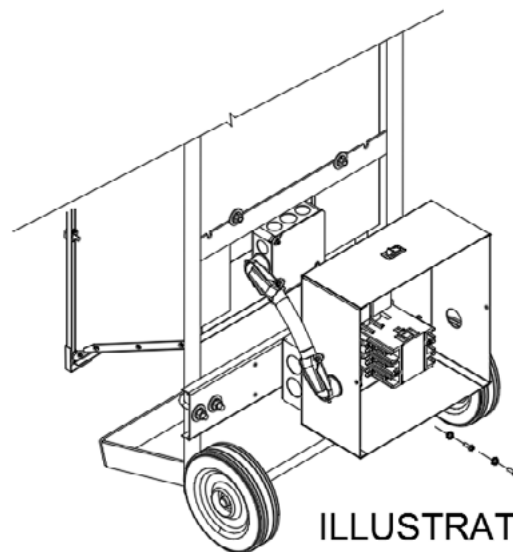
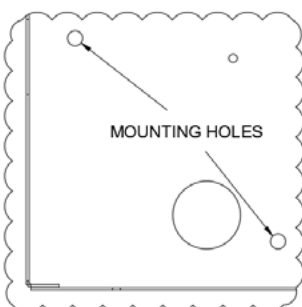


ILLUSTRATION 2



TO-SK-1 CONTROL BOX

WIRING

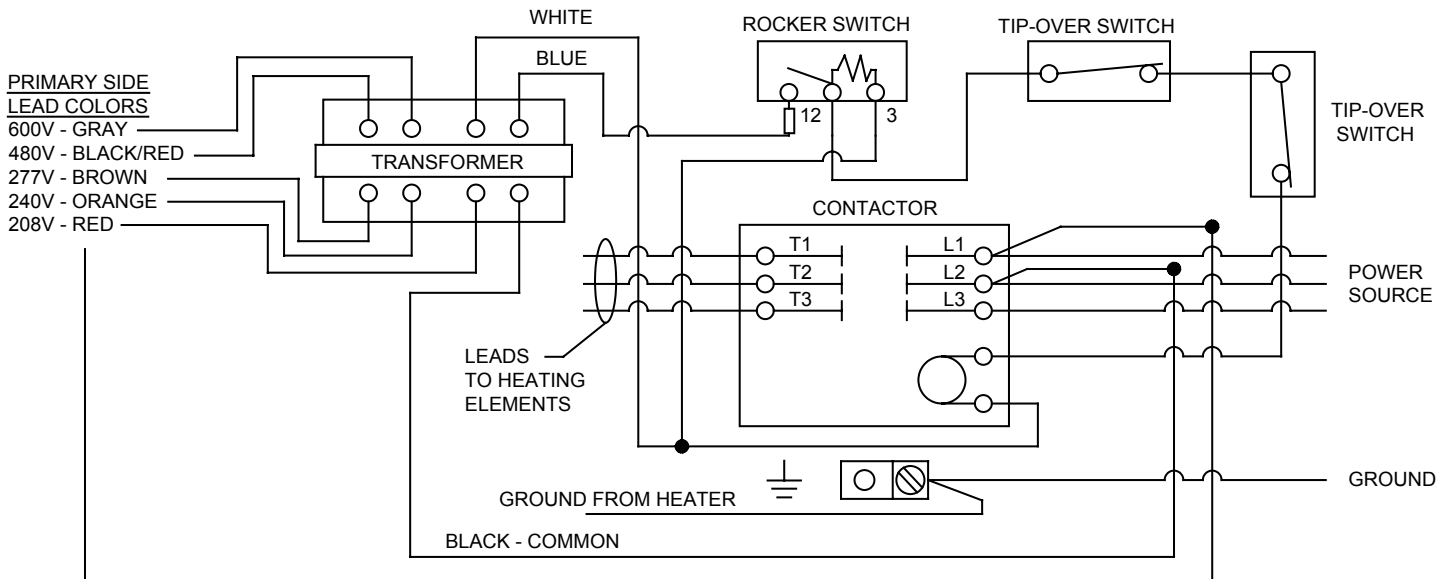
⚠ WARNING

ELECTRICAL SHOCK HAZARD

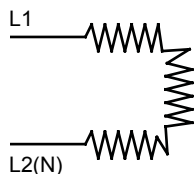


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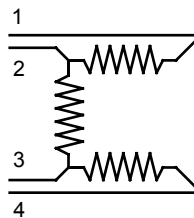
For field wiring and heater clearances, refer to the Installation Manual included with your heater. All wiring must be performed by a licensed electrician



**WIRING SCHEMATIC
FSP-4327-1 AND FSP-9527-1
MODELS**



FOR ALL OTHER MODELS



**FOR 3? OPERATION
L1-1 & 4, L2-2, L3-3.
FOR 1? OPERATION
L1-1 & 3, L2(N)-2 & 4.**

FSP SERIES SUPPLY WIRE SPECIFICATIONS

The following tables are provided to assist the installer in the sizing of electric cables and/or plug sizes needed for each FSP heater model. Cords and plugs will have to be obtained through a local supplier or purchased separately from Fostoria Industries. All wiring must be copper, rated 90°C and meet local codes and National Electric Code (NEC) requirements.

TABLE A								
Heater Model	Kw	Volts	Amps		Type SO Cable Size*		Plug Size 3-Ph	Plug Size 1-Ph
			3-PH	1-PH	3-PH	1-PH		
FSP-4320-3	4.3	208	11.94	20.67	12/4	10/3	20A/250V/4 WIRE	30A/250V/3 WIRE
FSP-4324-3	4.3	240	10.36	17.91	14/3	12/3	20A/250V/4 WIRE	30A/250V/3 WIRE
FSP-4327-1	4.3	277	N/A	15.52	N/A	12/3	N/A	20A/277V/3 WIRE
FSP-4348-3	4.3	480	5.18	8.96	14/4	14/3	20A/480V/4 WIRE	20A/480V/3 WIRE
FSP-4357-3	4.3	600	4.14	7.16	14/4	14/3	20A/600V/4 WIRE	20A/600V/3 WIRE
FSP-9520-3	9.5	208	26.39	45.67	10/4	6/3	50A/250V/4 WIRE	50A/250V/3 WIRE
FSP-9524-3	9.5	240	22.9	39.7	10/4	8/3	50A/250V/4 WIRE	50A/250V/3 WIRE
FSP-9527-1	9.5	277	N/A	34.3	N/A	8/3	N/A	50A/277V/3 WIRE
FSP-9548-3	9.5	480	11.44	19.8	12/4	10/3	20A/480V/4 WIRE	30A/480V/3 WIRE
FSP-9557-3	9.5	600	9.54	16.52	12/4	12/3	20A/600V/4 WIRE	30A/600V/3 WIRE

*50FT. Maximum Cable Length

The electric cables in the following table can be purchased from Fostoria Industries for use on the FSP series heaters. They all have copper conductors, are 25 feet long and have 90°C rated jackets. Cable connectors are included.

TABLE B			
ELECTRIC CABLES			
SIZE / TYPE	PART NO.	SIZE / TYPE	PART NO.
16/3 SO	08804300	8/3 SO	08805200
14/3 SO	08804600	8/4 SO	08805100
14/4 SO	08804900	6/4 SO	03164001
12/3 SO	08804500	4/3 SO	08805300
12/4 SO	03164201	2/3 SO	08804700
10/3 SO	08804400		