

# **Instruction Sheets**

## **Stir-Guard Option**

**PNEG-1158**



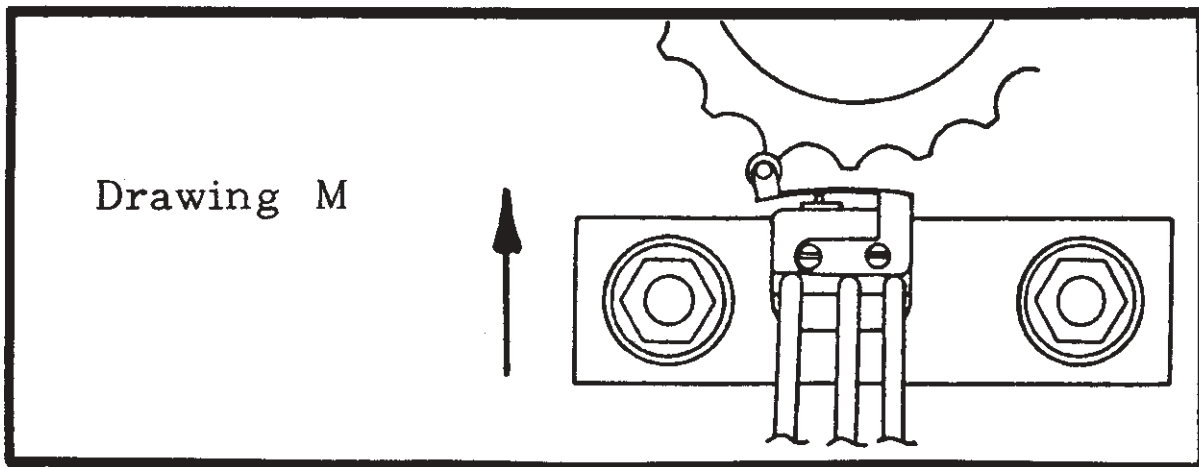
PNEG-1158

## STIR-GUARD OPERATION

The Stir-Guard is designed to protect your grain by shutting off the Stir-Ator if the unit is not advancing around the bin normally. As the gearmotor drives the unit around the bin, a microswitch actuator which rides on the lower notched swivel block sends a pulse to the solid state timer each time the roller advances one notch. If the unit does not advance forward enough to actuate the switch in 45 minutes, the timer will run out and the power to the motors on the Stir-Ator will be shut off by the contactor located in the swivel box of the Stir-Ator.

To reset the Stir-Guard timer, move the switch box handle to the "off" position, and then back "on". The unit will start up again. Before the Stir-Guard is reset, the problem that caused the Stir-Guard to shut the unit off should be located and corrected.

If adjustment of the microswitch roller acutator becomes necessary, turn off the power to the swivel at the switch box. Remove the right swivel box cover and loosen the nuts on the roller switch plate. Rotate the swivel block so the switch roller is riding on the peak of a swivel cog (*See Drawing M*). Slide the roller switch plate slowly in until the microswitch just clicks, then move the switch an additional 1/16" and tighten the nuts. Rotate the swivel to assure the switch clicks "on" and "off" as the roller rides in and out on the swivel cog. This is necessary for a pulse to be sent to the Stir-Guard timer.



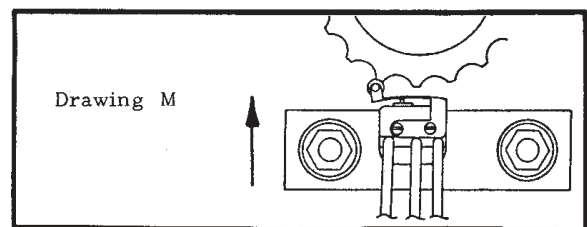
**STIRATOR TRAVEL TIME  
ONE REVOLUTION**

## DESIGN III STIR-GUARD OPTION INSTALLATION INSTRUCTIONS

- 1) Disconnect power to the unit.
- 2) Remove the two long swivel covers on the Stir-Ator yoke swivel housing.
- 3) For 230 volt units, go to 4.

For 440 volt units, remove the two self-tapping screws on the top of the swivel yoke enclosure. Position the Solid State module #2EL1207 inside the top of the yoke swivel housing with the five terminals on the module pointing toward the Stir-Ator swivel. Bolt the module onto the yoke where the self-tapping screws were removed using two #8 x 1/2" screws and whiz lock nuts.

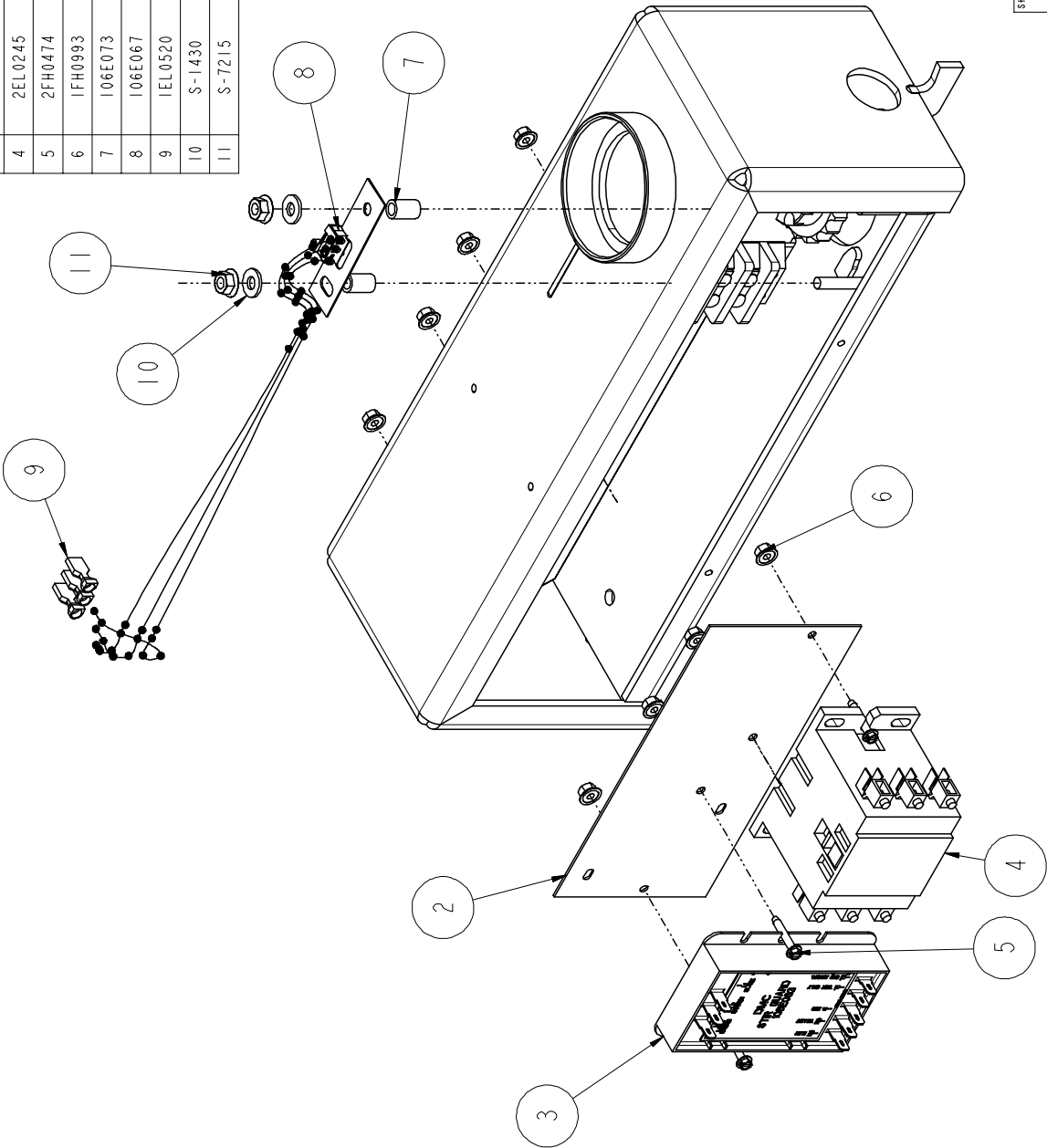
- 4) Fasten the Stir-Guard assembly plate onto the swivel housing with the Stir-Guard contactor toward the swivel, secure with the #8 whiz lock nuts. (Do not loosen the nuts holding the components on the Stir-Guard assembly plate).
- 5) Place the two small spacers onto the threaded studs welded in the swivel housing, next place the Stir-Guard switch and mounting plate onto the studs with the roller switch toward the cog swivel ring. Secure with whiz lock nuts. **DO NOT TIGHTEN AT THIS TIME.**
- 6) Adjust by putting the switch roller on the peak of a swivel cog. (See Drawing M). Move the switch plate slowly inward until the roller switch clicks. After the click, move an additional 1/16", then tighten. Rotate the swivel, be sure the roller switch rides in and out freely and the switch clicks on and off as it passes over each cog. This is necessary for a pulse to be sent to the Stir-Guard timer. Without a pulse every 45 minutes, the Stir-Guard will shut down the Stir-Ator operation.
- 7) Connect the roller switch wires to the Stir-Guard Solid State module matching wire color to module color-coded markings.
- 8) Remove lead-in wires coming from yoke pipe to the terminal strip **EXCEPT GREEN WIRE**. Cut off the spade terminal and strip the installation back 3/8". Reconnect these wires to the top and bottom lugs of the Stir-Guard contactor. (If three phase, connect red wire to center lug of Stir-Guard contactor). Red wire is only used for three phase.
- 9) Connect the black jumper wires from left side of the Stir-Guard contactor to the terminal strip. (Three phase will use the extra wire sent with the kit).
- 10) Replace the swivel box covers.
- 11) Place the "STIR-GUARD" decals on the swivel covers over the "DMC" decal already on the cover. **DO NOT COVER THE CAUTION DECAL.**



**STIRATOR TRAVEL TIME  
ONE REVOLUTION**

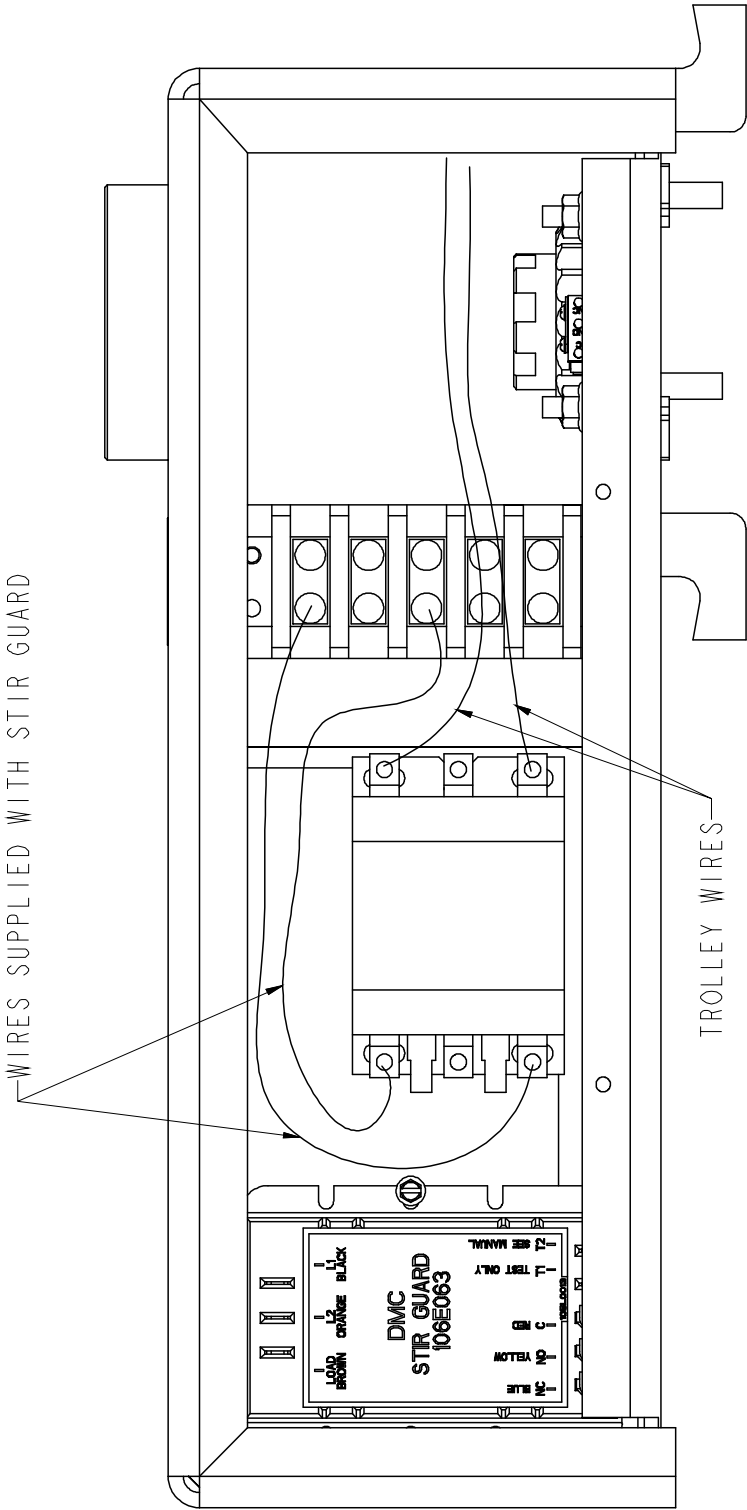
RED WIRE IS NOT USED FOR SINGLE PHASE UNITS

ITEM	PART #	QTY	DESCRIPTION
1	106A023	1	PLATE- STIR GUARD MOUNT
2	106E066	1	PLATE- STIR GUARD DIII STIRATOR
3	106E063	1	TIMER- STIR GUARD(45MIN) WITH DECAL
4	2EL0245	1	CONTACTOR- MAGNETIC, 40 AMP, 208/240V COIL
5	2FH0474	4	SCREW #8-32 X 1 "F" HHWS PLTD
6	1FH0993	8	NUT-LOCK, FLG, #8-32 PLTD
7	106E073	2	STANDOFF- SWITCH, STR-G.
8	106E067	1	SWITCH- STIR GUARD
9	1EL0520	3	TERMINAL- F/M QUICK (CSA)
10	S-1430	2	1/4" SAE PLATED WASHER
11	S-7215	2	NUT FLANGWZ 1/4-20 ZINC



Sheet Size: N/A		Sheet 1 of 3		N/A		Drawing No.	
Material		N/A		27.878		SG230	
Weight		N/A		Scale		NONE	
Tolerances		DW		3-Dec-02		Work to Dimensions	
(Unless Noted)		By		Date		Do Not Scale	
Fractions +/- 1/32"		Checked					
Decimals +/- .031		By					
Angles +/- 1.00							
The GSI Group		STIR GUAD OPTION 230V		DMC			
Assumption, IL							
Engineering Division		DMC					
No.		ECN		Revision Description		Date By	

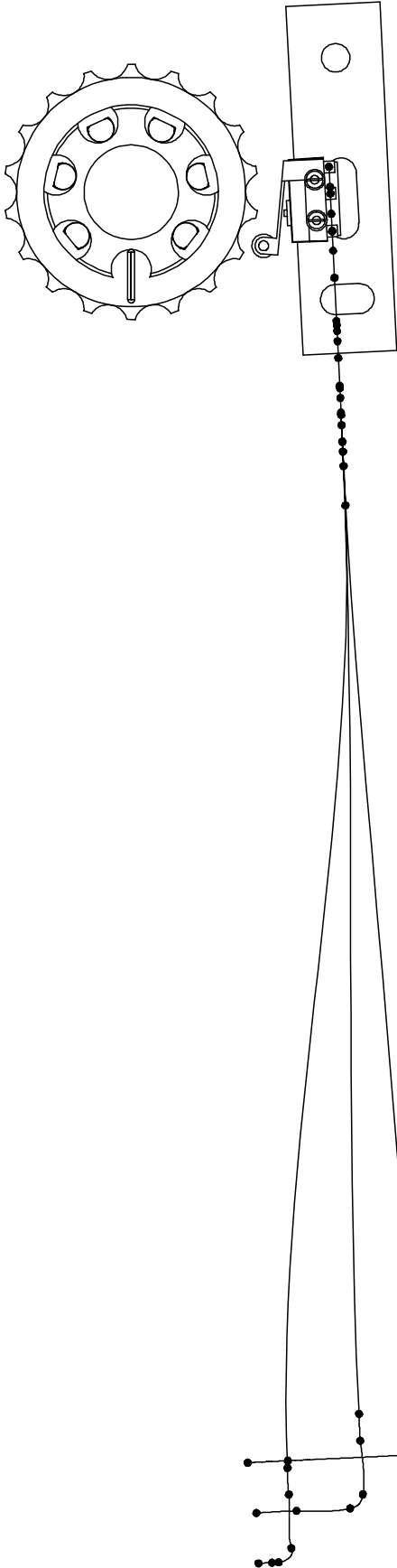
RED WIRE IS NOT USED FOR SINGLE PHASE UNITS  
USE BLACK & WHITE WIRES FOR SINGLE PHASE UNITS



Sheet Size: <b>N/A</b>		Sheet 2 of 3		IM: <b>N/A</b>		Drawing No. <b>SG230B</b>	
Material		Sp. Ft. <b>N/A</b>		Ship #.		Scale <b>NONE</b>	
Drawn By <b>DW</b>		Date <b>31-Dec-02</b>		Scale		Work to Dimensions	
Checked By		Date		Do Not Scale			

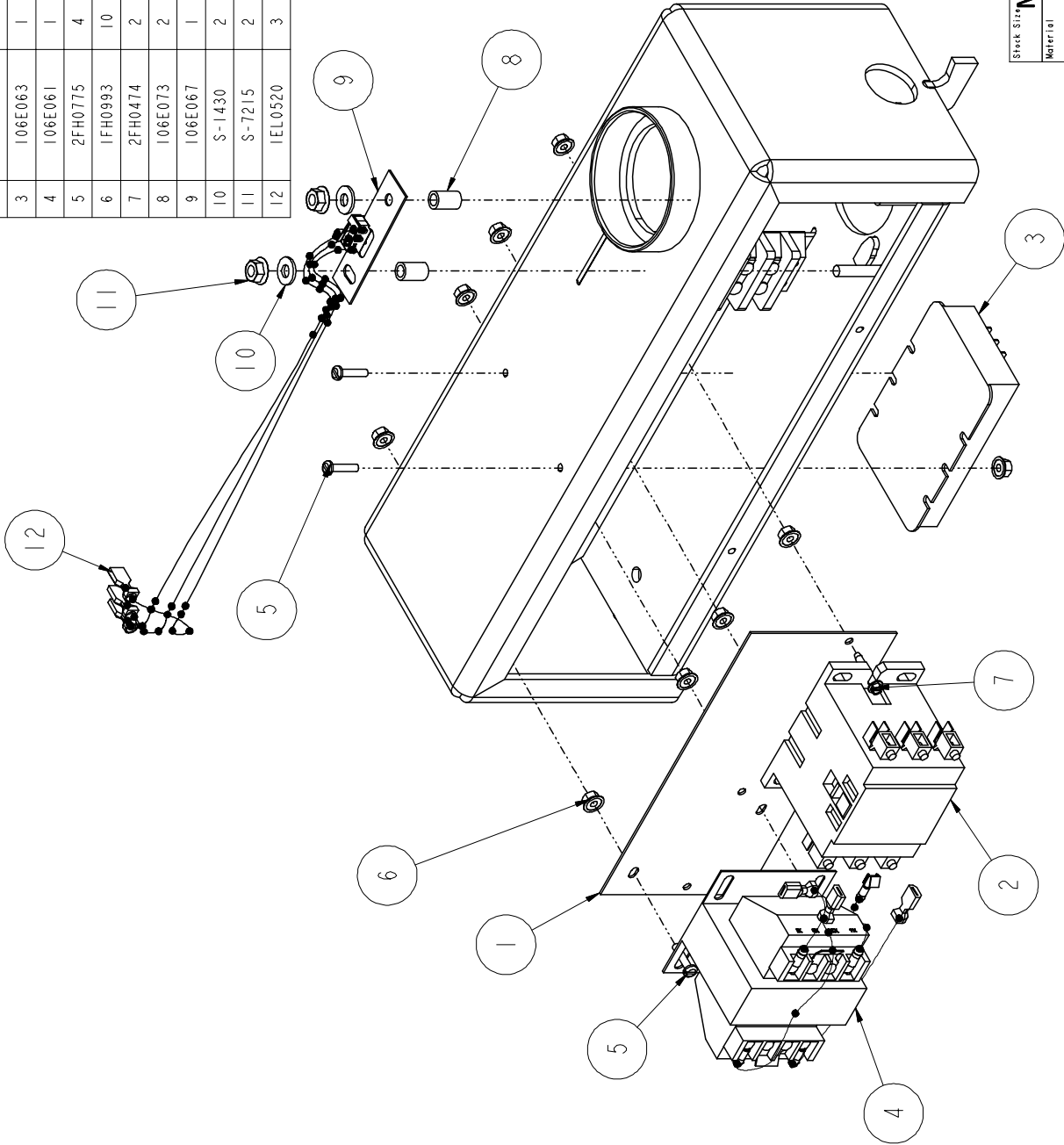
SINGLE PHASE		STIR GUAD OPTION 230V	
Engineering Division: <b>DMC</b>		<b>DMC</b>	
No.	ECN	Revision Description	Date By

PUT THE SWITCH ROLLER ON THE PEAK OF A SWIVEL COG MOVE THE SWITCH  
PLATE SLOWLY INWARD UNTIL THE ROLLER SWITCH CLICKS AFTER THE CLICK, THE  
MOVE AN ADDITIONAL 1/16", THEN TIGHTEN. ROTATE THE SWIVEL, BE SURE THE  
ROLLER SWITCH RIDES IN AND OUT FREELY MAKE SURE THE SWITCH CLICKS ON  
AND OFF AS IT PASSES OVER EACH COG

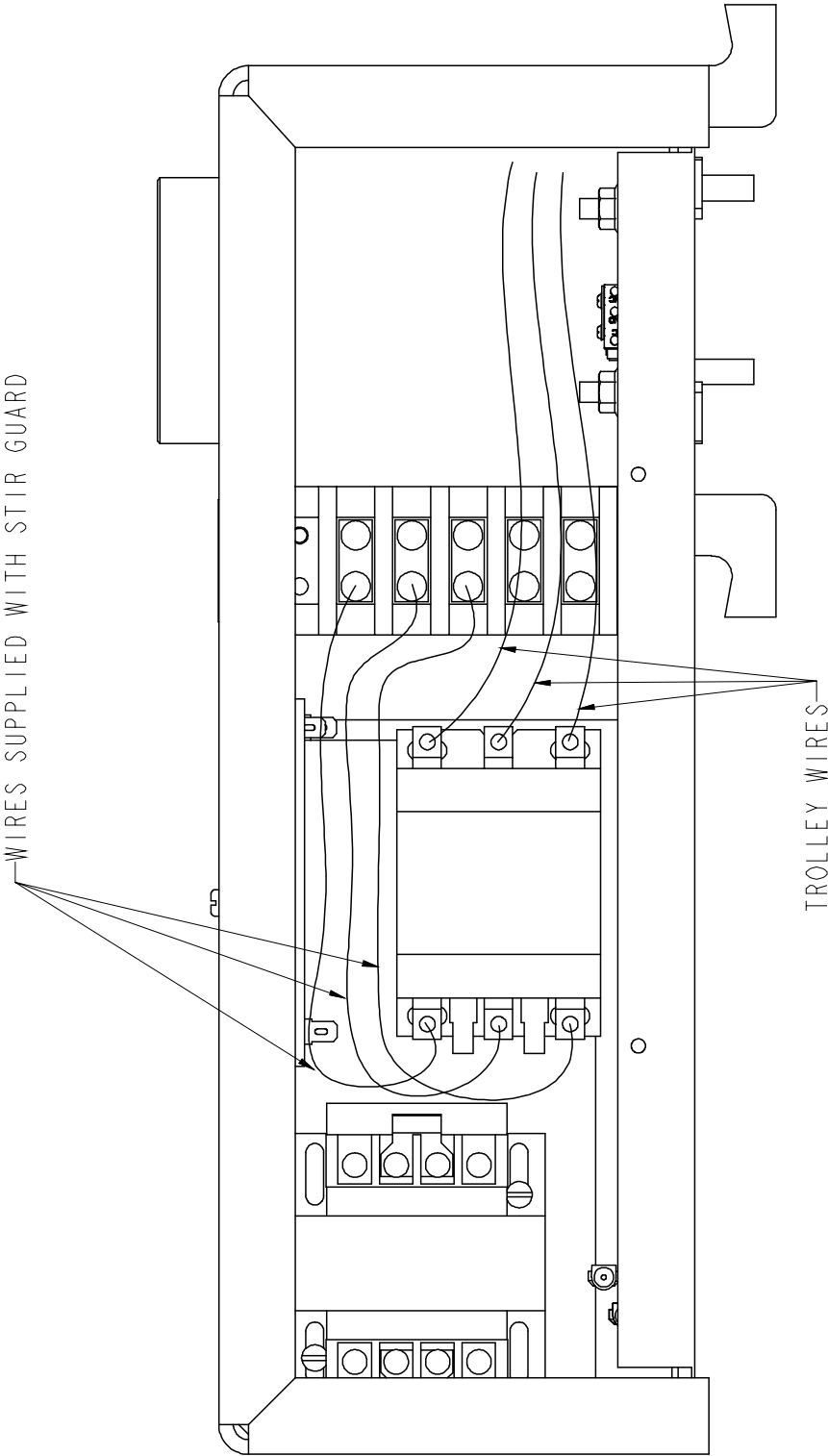


Sheet Size: <b>N/A</b>		Sheet 3 of 3		I/M <b>N/A</b>		Drawing No. <b>SG230C</b>	
Material		Sht. Ft. <b>N/A</b>		Ship Scale <b>NONE</b>		Work to Dimensions Do Not Scale	
Weight: <b>N/A</b>		Drawn By: <b>DW</b>		Date: <b>31Dec-02</b>			
TOLERANCES (Unless Noted)		STIR GUARD OPTION		DMC			
Fractions +/- 1/32"							
Decimals +/- .031							
Angles +/- 1.00							
No.	ECN	Revision Description		Date	By		

ITEM	PART #	QTY	DESCRIPTION
1	106E066	1	PLATE- STIR GUARD DIII STIRATOR
2	2EL0245	1	CONTACTOR- MAGNETIC, 40 AMP, 208/240V COIL
3	106E063	1	TIMER- STIR GUARD(45MIN) WITH DECAL
4	106E061	1	TRANSFORMER- STIR GUARD W/WIRES 440V
5	2FH0775	4	#8-32 X 3/4 MSPHS PLTD
6	1FH0993	10	NUT-LOCK, FLG, #8-32 PLTD
7	2FH0474	2	SCREW #8-32 X 1 "F" HWHS PLTD
8	106E073	2	STANDOFF- SWITCH, STR-G.
9	106E067	1	SWITCH- STIR GUARD
10	S-1430	2	1/4" SAE PLATED WASHER
11	S-7215	2	NUT FLANGWZ 1/4-20 ZINC
12	1EL0520	3	TERMIINAL- F/M QUICK (CSA)



										3										2										1									



Stock Stir: <b>N/A</b>		Sheet 2 of 2		DW <b>N/A</b>		Ship No. <b>30529</b>		Drawing No. <b>SG440B</b>	
Material		DW <b>06-Jan-03</b>		Scale <b>NONE</b>		Work to Dimensions <b>Do Not Scale</b>			
		TOLERANCES (Unless Noted) Fractions +/- 1/32 Decimals +/- .031 Angles +/- 1.00		<b>STIR GUARD OPTION 440V</b>		<b>DMC STIRATOR</b>			
		<b>THE OSI GROUP</b> Assumption, IL Engineering Division <b>DMC</b>							
No.	ECN	Revision Description		Date		By			







DMC  
1004 East Illinois Street  
Assumption, IL 62510-0020  
217-226-4421

**Revision: 01-16-2003**

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