SPREAD-ALL MFG. CO.
2237 MARSHALLTOWN BLVD. • MARSHALLTOWN, IOWA 50158
PHONE: (641) 753-5601 • TOLL FREE: 1-800-383-5601 • FAX: (641) 752-9748
WWW.SPREAD-ALLMFG.NET



OPERATING MANUAL

AERATION FANS

MODELS: SA-16200 - SA-281300

SAFETY PRACTICES

1. Have a qualified electrician install your fan for proper grounding. A proper ground is necessary for protection against electrical shock and lightning strikes. The use of Ground Fault Circuit Interrupter (GFCI) is suggested on all outside electrical wiring to reduce potential for electrical shock.

2. No electrical maintenance checks should be done if power is "ON."

3. Fan guards should be kept in place during the operation of the fan.

4. The end of the fan should be kept clear for proper air flow.

When a shipment is received you should carefully check while unpacking and before installing the unit for possible damage or shortage of parts. In case of problems in shipping, such as shortage or damage, you should file a claim with the carrier.

01-13/OMAF 16200 28300

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Aeration /Axial Fans

FEATURES

- Model SA-12075 and SA-14100 feature 115 volt single phase electric motors with plug cords wired.
- Standard legs, stands and carrying handles.
- Weather Resistant Guards.
- Completely factory assembled and test run before shipment.
- Reversible application to pull air down through the grain, or to direct the air flow up through the grain by turning the fan around and reversing the guard.
- Either the intake or the discharge ends may be mounted to an air duct, metal transition or a flat wall bin.

OPTION

- Magnetic contactor mounted in a weatherproof enclosure on 18" fan; standard on 24" and 28" fan.

SAFETY PRACTICES

1. Have a qualified electrician install your fan for proper grounding. A proper ground is necessary for protection against electrical shock and lightning strikes. The use of Ground Fault Circuit Interrupter (GFCI) is suggested on all outside electrical wiring to reduce potential for electrical shock.
2. No electrical maintenance checks should be done if power is “ON.”
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4. The end of the fan should be kept clear for proper air flow.

When a shipment is received you should carefully check while unpacking and before installing the unit for possible damage or shortage of parts. In case of problems in shipping, such as shortage or damage, you should file a claim with the carrier.



12" FAN • MODEL: SA-12075



24" FAN • MODEL: SA-24500

01-13/AFA XF

• Installation Instructions •

1. SOLID BASE

Bad vibrations are hard on the motor. They cause a wearing process on the motor bearings that may limit the life of the motor. It is therefore necessary to take time and effort to put your fan on a solid base. A concrete slab is ideal as a base. If the slab is not level, wooden spacers may be used under the fan legs. If the fan unit is not level the binding of the unit will deform the fan housing and will cause future problems.

2. INSTALLATION DATA

Careful planning should be made for installing the fan unit. The fan unit should be elevated as high as the grain bin itself. The fan unit should either be connected to the grain bin or at a distance for proper connection to the transition.

3. ELECTRICAL

A certified electrician must do all electrical service, and the installation must be done according to “Part 1” of the National Electrical Code (USA). A circuit breaker box with fuse protection must be installed for the fan unit. The fuse requirements are sized for 25% overload capacity. These fuses are for the protection of the operator.

Any questions should be referred to an electrician for both service needs and for installation.

Ground fan according to the above electrical code.

PRE-START INSTRUCTIONS

1. Check by rotating the fan blade to make sure it does not hit or rub against the housing.

2. Check ALL fastening devices for tightness and check for proper clearance. Any loose fasteners should be tightened.

3. Make certain that the fan and switch are well grounded.

4. Give the fan a trial run before installing it. Check to see that the fan blade rotates properly and that the air is flowing in the proper direction.

OPERATION & MAINTENANCE

Spread-All fans use standard NEMA frame motors. Any authorized service stations of any motor manufacturer can supply the replacement parts. These motors are designed for crop drying and are protected by built-in thermal overloads. Single phase motors, with 3600 RPM, may have problems during the initial starting surge. The amperage surge of the initial start is usually five times the rating on the motor and the total voltage drop should not be below 190 volts on the starting surge, and no lower than NEMA specified 10% of the line voltage during the starting surge, there is a good possibility that it may burn capacitors out. If the line voltage remains low during the operation, the motor will probably overheat and a shutoff or burn out is likely to take place.

• Spread-All fans should be run 30 minutes every 3 weeks to eliminate any damaging moisture build-up in the motor. •

01-13/OMII

• Fan Performance Rated in Inches of Static Pressure •

CFM AT INCH OF STATIC PRESSURE

MODEL	FAN SIZE	H.P.	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
12075	12"	3/4	2115	1850	1050	480	240					
12100	12"	1.0	2115	1850	1050	480	240					
14100	14"	1.0	3600	3170	2350	1300	920	640	350			
16200	16"	2	3700	3300	2800	1865	1275	800	600			
18200	18"	2	4975	4650	4100	3120	2050	1550	950			
18300	18"	3	5980	5600	5400	4950	4600	3200	2300	1800	1200	
24500	24"	5	12200	11600	10800	10050	9190	8100	6400	4900	3900	3000
241000	24"	10	14850	14325	13750	13235	12375	11400	10200	7550	5380	4350
281300	28"	15	16300	15600	15100	14435	13700	12800	12200	11340	10500	9500

FAN DATA

MODEL	H.P.	NO. OF BLADES	OVERALL LENGTH	BOLT HOLE DIAMETER
12075	3/4	6	14	7/16" x 13/16"
14100	1.0	6	14	7/16" x 13/16"
16200	2	7	16	7/16" x 13/16"
18200	2	6	18	7/16" x 13/16"
18300	3	6	18	7/16" x 13/16"
24500	5	6	27	7/16" x 13/16"
241000	10	6	27	7/16" x 13/16"
281300	15	6	28	7/16" x 13/16"

01-13/AFFP

• Motor Amps for Aeration Fans •

FAN MODEL	1 PH 115V/230V	RUNNING AMPS 3 PH 230V	3PH 460V
SA-12075	9	2.4	1.2
SA-12100	11	2.7	1.35
SA-14100	11	3.6	1.8
SA-16200	8.8	6.8	3.4
SA-18200	8.8	6.8	3.4
SA-18300	15.4	7.4	3.7
SA-24500	28	15	7.5
SA-241000	38	25	12.5
SA-281300	50	36	18

*Starting Amps on aeration fans could require up to 5x the amount of amperage listed on the motor name plate.

ELECTRICAL INSTRUCTIONS

NOTE #1
A certified electrician must do all electrical service, and the installation must be done according to PART 1 of the National Electrical Code. A circuit breaker box with fuse protection must be installed for the fan unit. The fuse requirements are sized for 25% overload capacity. These fuses are for the protection of the operator.

NOTE #2
These are required wire and fuse sizes and must be complied with for correct operation.

MOTOR H.P. RANGE	RPM	AMP	COPPER WIRE SIZE FOR DISTANCE-MOTOR TO TRANSFORMER IN FT.				FUSETRON OR TIME DELAY FUSES
			0'-50'	100'	200'	300'	
2	3450	10	14	12	10	8	30
3	3450	18	12	10	6	5	30

| Single phase installations must be three wire with grounded neutral. |

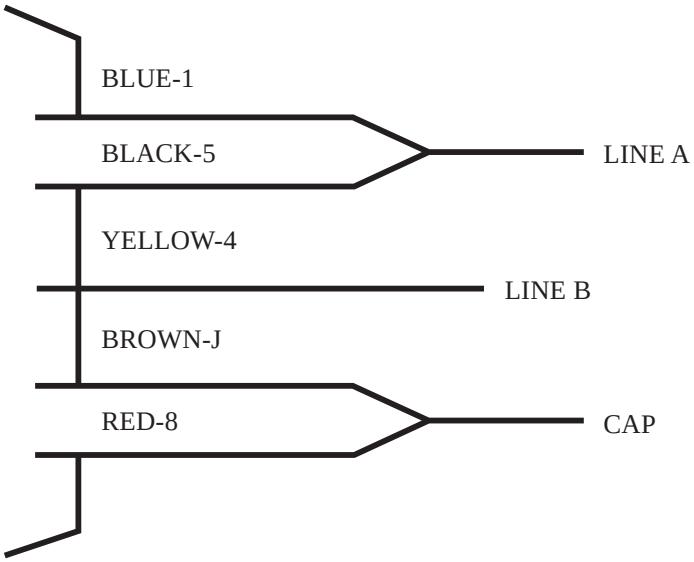
NOTE #3
Three phase motors 230/460 Volts

		230	460					
2	3450	6	3.0	14	14	12	10	20
3	3450	10	5.0	14	12	10	8	20

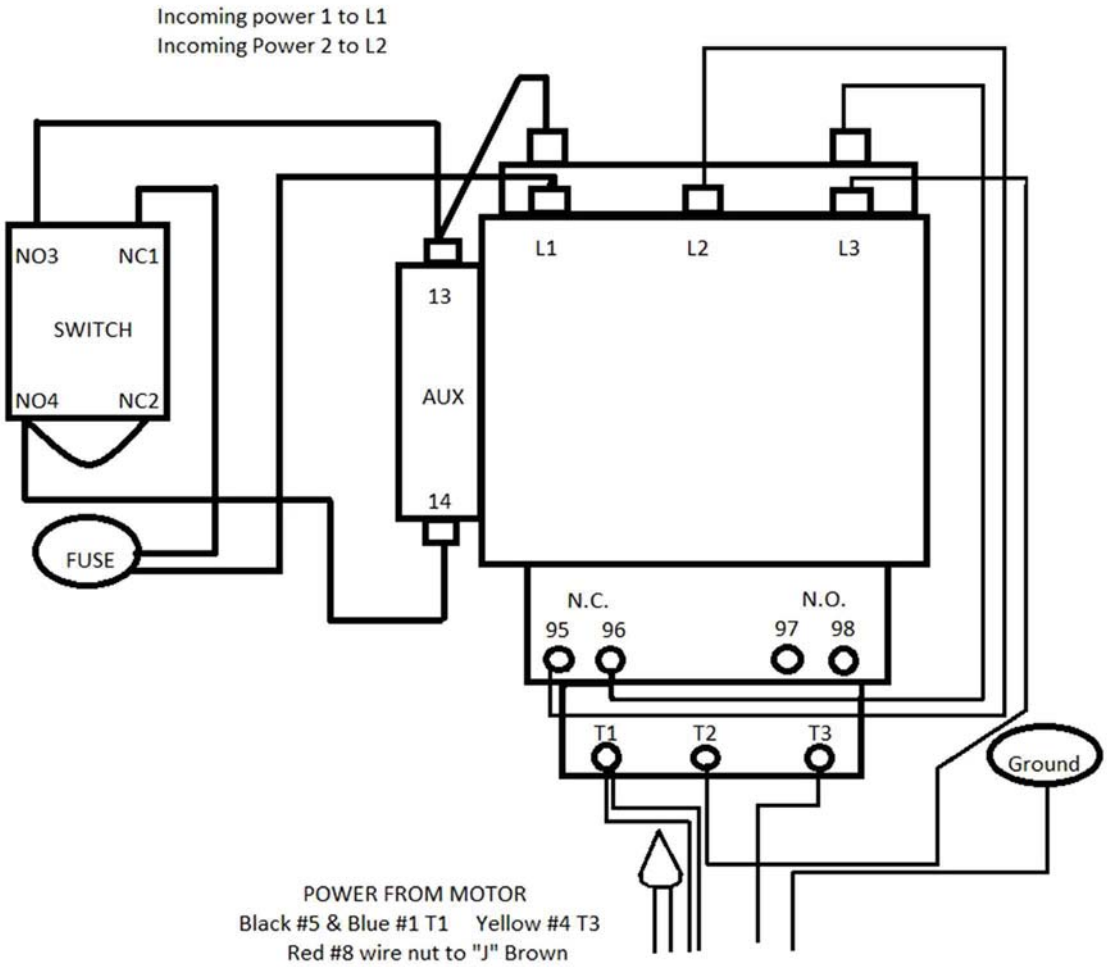
| Three phase installations must be four wire with grounded neutral. |

NOTE #4
Before installing any electrical equipment always check current federal, state and local codes.

18'' 2 & 3 HP 1 PHASE BALDOR MOTOR



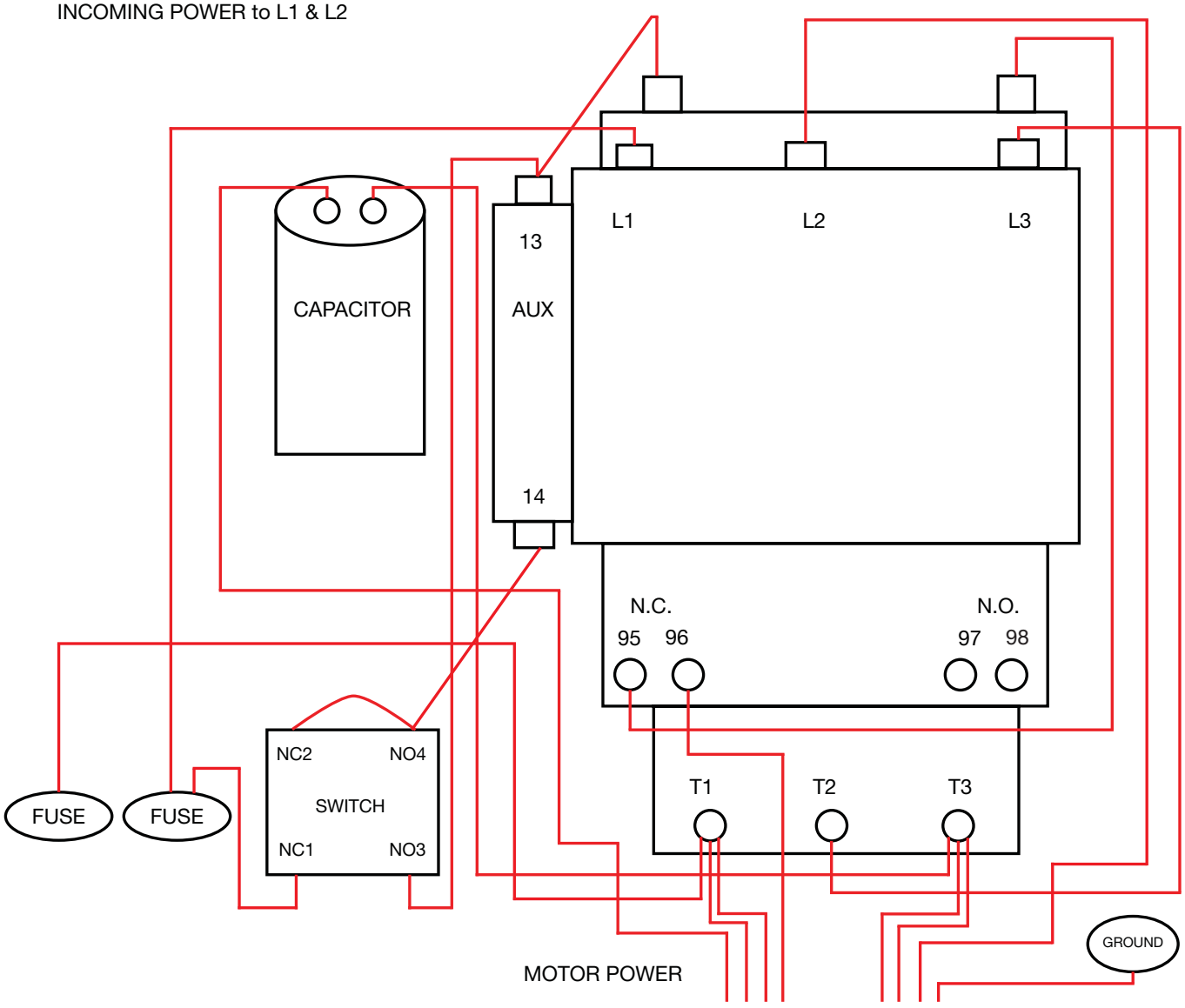
18” 1ph 230v with Starter



01-13/AFWD 18 2&3 HP1

230 VOLT - 1 PH

MOTOR BLUE (#1) & BLACK (#5) to T1
MOTOR RED (#8) & YELLOW (#4) to T3
MOTOR J TO 96, MOTOR J to L2
MOTOR BLACK (#0) to CAPACITOR LEFT
INCOMING POWER to L1 & L2

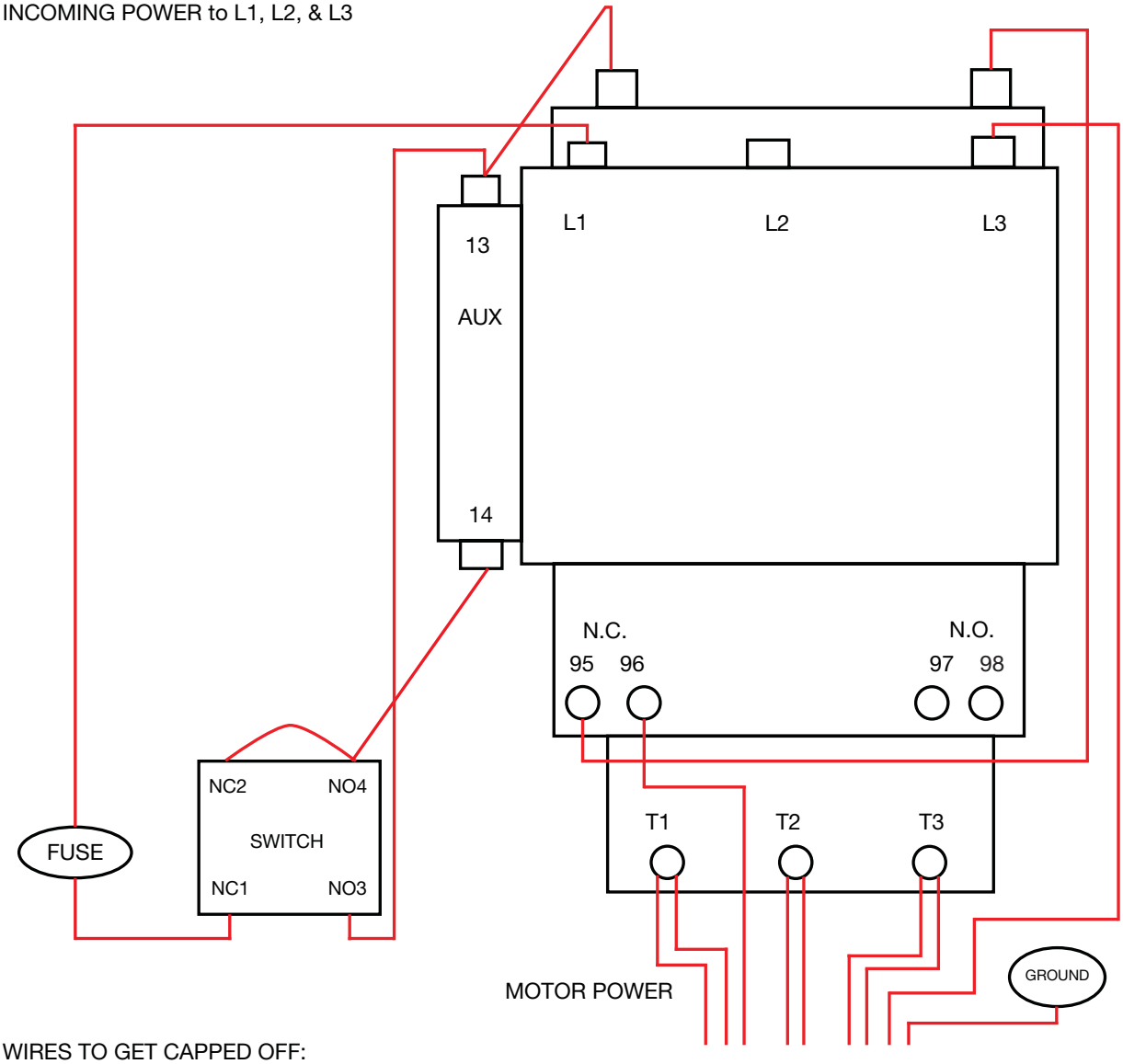


NOTICE!
THE VOLTAGE BETWEEN 'L1' AND 'N' MUST BE 120 VAC NOMINAL. OTHER VOLTAGE WILL CAUSE DAMAGE TO EQUIPMENT.

04-16/WD 230V 1PH 230/460V3PH

230 VOLT - 3 PH

MOTOR POWER GRAY (#9) & ORANGE (#3) to T3
MOTOR POWER RED (#8) & WHITE (#2) to T2
MOTOR POWER PINK (#7) & BLUE (#1) to T1
MOTOR J TO L3, MOTOR J to 96
INCOMING POWER to L1, L2, & L3



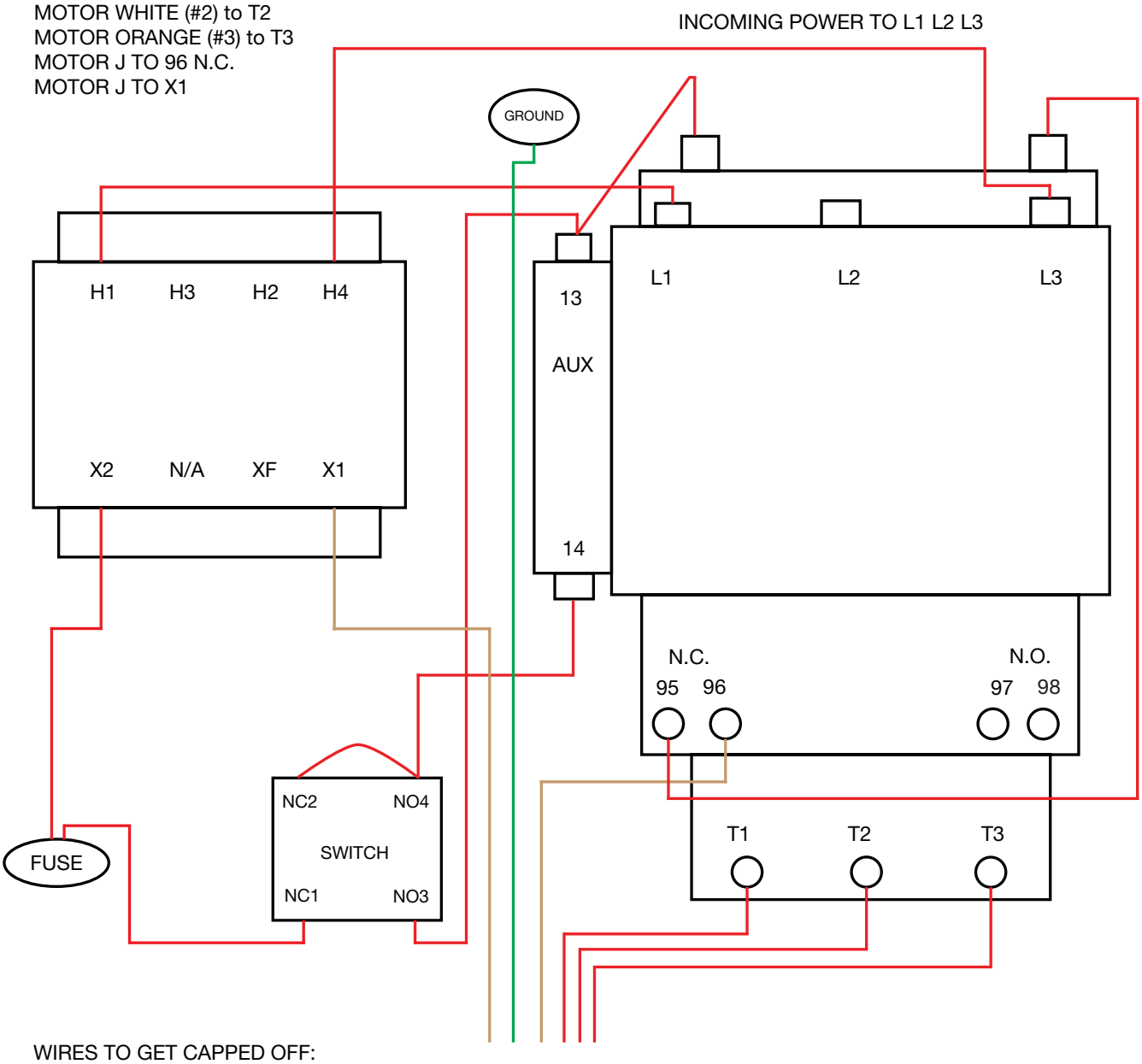
WIRES TO GET CAPPED OFF:
YELLOW (#4), BLACK (#5), AND PURPLE (#6)

NOTICE!
THE VOLTAGE BETWEEN 'L1' AND 'N' MUST BE 120 VAC NOMINAL. OTHER VOLTAGE WILL CAUSE DAMAGE TO EQUIPMENT.

04-16/WD 230V 1PH 230/460V3PH

460 VOLT - 3 PH

MOTOR BLUE (#1) to T1
MOTOR WHITE (#2) to T2
MOTOR ORANGE (#3) to T3
MOTOR J TO 96 N.C.
MOTOR J TO X1



WIRES TO GET CAPPED OFF:
YELLOW (#4) AND PINK (#7)
BLACK (#5) AND RED (#8)
PURPLE (#6) AND GRAY (#9)

*SEE TRANSFORMER LABEL FOR PROPER CONNECTIONS

04-16/WD 230V 1PH 230/460V3PH

SPREAD-ALL MFG. CO.

Optional SA-VAHK Hanging Kit

*When setting pieces, loosely fit bolts until all pieces are attached.

1) Take apart top 2 bolts that attach the screen.
2) Add #1 to the back side of the flange and retighten bolts. See figure 2.
3) Add 2 turnbuckles to #1. See figure 1.
4) Install #2 on bin sheet to make 45˚ angle from fan to bin
   -- Roughly 3 bin sheets high. Space #2 at least 5-6’ apart from each other.
5) Place 2 thimbles thru 2 turnbuckles on fan.
   Place 2 thimbles thru 2 bin brackets (#2).
6) Run cable thru bin bracket thimble and turnbuckle thimble.
   Then place 2 cable clamps on top and bottom.
7) Tighten turnbuckles until fan is level.

* Please note: Warranty is void if fan is hung incorrectly.

Figure 1

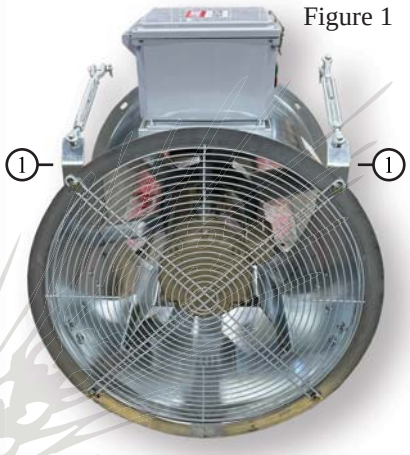
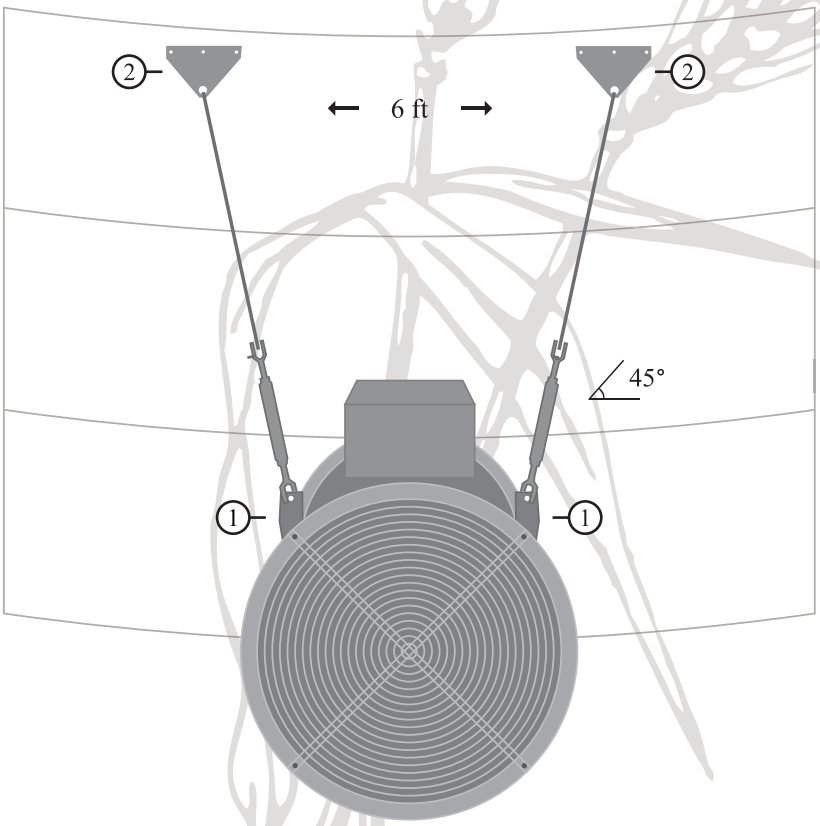
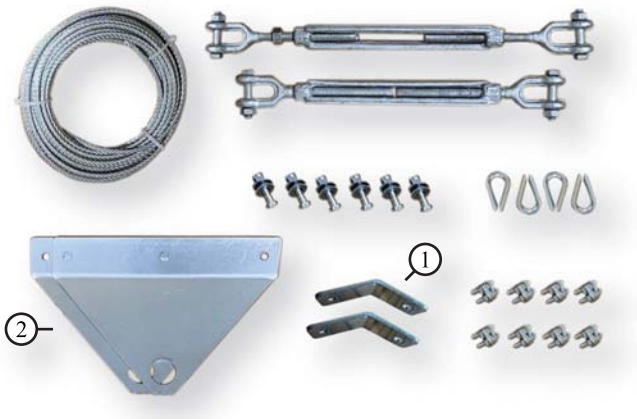


Figure 2







MAIL GUARANTEE CARD TODAY

(MAIL WITHIN 10 DAYS OF PURCHASE OR GUARANTEE IS VOID)

Owner _____

Street or Route _____

City _____ State _____ ZIP/Zone _____

Dealer's Name _____ Model# _____

Address _____

Date of Purchase _____

SPREAD-ALL equipment is guaranteed against defective material and workmanship for a period of one year from the date of sale to the original purchaser. We will repair or replace defective parts upon inspection and direction by our service department. No returns for credit allowed. We will not handle warranty on electric motors. Motor warranties will be handled by the motor manufacturers and their repair stations. Spread-All does not cover labor costs or milage charges on warranty or non-warranty work.

We assume no responsibility for any damage incurred in transit or for any other abuses, or incorrect application; nor for any attempted repairs by others without our written authorization. Sender must receive written permission from our factory before returning equipment. All shipping charges to and from the factory on defective units will be assumed by the customer.

Manufacturer shall only be liable under this guarantee if the product is used in the proper manner as specified in the enclosed instructions.

Manufacturer specifically disavows any other representation, warranty or liability related to the condition or use of this product.

The warranties contained herein are the only warranties made by the manufacturer, and no other warranties, express or implied, are given on this product.

Any warranty contained herein shall not apply to any product which shall have been repaired or altered outside the manufacturer's facilities or in any way so as, in the manufacturer's judgment, to affect its stability or reliability, or which has been subject to misuse, negligence or accident. Warranties shall not apply to any product which shall not have been operated in accordance with the printed instructions or shall have been operated beyond the rate of capacity of the product.

Please complete and mail within 10 days of purchase to:

SPREAD-ALL MFG. CO.
2237 MARSHALLTOWN BLVD.
MARSHALLTOWN, IOWA 50158-9892

01-13/MGC

SPREAD-ALL MFG. CO.

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Grain Storage Equipment



SA-10 SA-106
SP G GRAV T
SPREADER

- Gravity Spreader designed to help keep fines out of center of smaller bins
- Has strong hanger straps (and a leveling strap)
- Capacity:
  SA-105: 3000-5000 Bu./Hr.
  SA-106: 6000-9000 Bu./Hr.
  (Depending on grain and moisture)



ROOF VE TS

Models Available | 70 & 90 degree

- Heavy, easily detachable angle base
- Lock seam joints
- Birdproof screen
- 100% galvanized to withstand years of weather conditions
- Symmetrically punched holes make one-person installation a breeze
- Double edges add strength
- Pivot Screen Available



SA-
GALVA ED GRAV T
SPREADER

- To help keep fines from center of small bins
- Light weight 18#
  (Comes unassembled in box)



SPREAD-ALL
TRA S T O S FEAT RE

- All galvanized steel
- Completely assembled
- Transitions have access doors
- SA-82 (shown)

Complete Offering of Aeration Fans







FEAT RES

- Galvanized
- Models SA-12075 and SA-14100 feature 115 volt, single phase electric motors with plug cords wired
- Standard leg stands and carrying handles
- Weather Resistant Guards
- Completely factory assembled and test run before shipment
- Magnetic contactor mounted in a weatherproof enclosure on 24"& 28" fans
- Reversible application to pull air down through the grain, or to direct the air flow up through the grain by turning the fan around and reversing guard
- Either the intake or the discharge ends may be mounted to an air duct, metal transition or a flat wall bin
- These fans are designed for quiet, efficient aeration with a minimum of maintenance and operating cost
- Models available 12" to 28"... So you can get just the right fan to do the job right

01-13/GSE AF

Complete Offering of Grain Spreaders



PATENTED MOTOR TOP
PATENT # US D892,738 S



SA-93
SPREAD-ALL SPECIAL
For 6" & 8" auger
- Without reversing switch
- Capacity: Up to 3000 Bu./Hr (Depending on grain and moisture)
- Powered: oil bath gear case
- Motor: 1/2 HP 115V
- Weight: 85 lbs
- Bin diameters 18' to 30'
- Vary the spread by tilting pan

SA-94
E-2 COMPACT
For 6" & 8" auger
- With reversing switch
- Capacity: Up to 3000 Bu./Hr. (Depending on grain and moisture)
- Powered: oil bath gear case
- Motor: 1/2 HP 115V
- Weight: 85 lbs
- Bin diameters 18' to 36'
- Reversible switch to change from narrow to wide spread

SA-95HS
E-2 HIGH SPEED
For 6" & 8" auger
- With reversing switch
- Capacity: Up to 3000 Bu./Hr. (Depending on grain & moisture)
- Powered: oil bath gear case
- Motor: 1/2 HP 115V
- Weight: 85 lbs
- Bin diameters: 42' +
- Reversible switch to change from narrow to wide spread

SA-96
E-3 COMPACT
For 10" auger
- Without reversing switch
- Capacity: 3000 to 5000 Bu./Hr. (Depending on grain and moisture)
- Powered: oil bath gear case
- Motor: 1/2 HP 115V
- Weight: 85 lbs
- Bin diameters: 18' to 36'
- Vary the spread by tilting pan

OUR MOST POPULAR MODEL!

SA-97
E-3 COMPACT
For 10" auger
- With reversing switch
- Capacity: 3000 to 5000 Bu./Hr. (Depending on grain and moisture)
- Powered: oil bath gear case
- Motor: 1/2 HP 115V
- Weight: 85 lbs
- Bin diameters: 18' to 36'
- Reversible switch to change from narrow to wide spread

SA-97HS
E-3 HIGH SPEED
For 10" auger
- With reversing switch
- Capacity: 3000 to 5000 Bu./Hr. (Depending on grain and moisture)
- Powered: oil bath gear case
- Motor: 1 HP 115V
- Weight: 100 lbs
- Bin diameters: 42' +
- Reversible switch to change from narrow to wide spread

SA-103
E-6
For 13" auger
- With reversing switch
- Capacity: 6000 to 9000 Bu./Hr. (Depending on grain and moisture)
- Powered: oil bath gear case
- Motor: 1 HP 115V
- Weight: 100 lbs
- Bin diameters: 18' to 36'
- Reversible switch to change from narrow to wide spread

SA-104HS
E-6 HIGH SPEED
For 13" auger
- With reversing switch
- Capacity: 6000 to 9000 Bu./Hr. (Depending on grain and moisture)
- Powered: oil bath gear case
- Motor: 1 HP 115V
- Weight: 100 lbs
- Bin diameters: 42' +
- Reversible switch to change from narrow to wide spread

11-15/GSCO

| Note: 3 phase is also available, please specify voltage when ordering 230V or 460V. We recommend a Reversible Spreader on bins over 30'. |