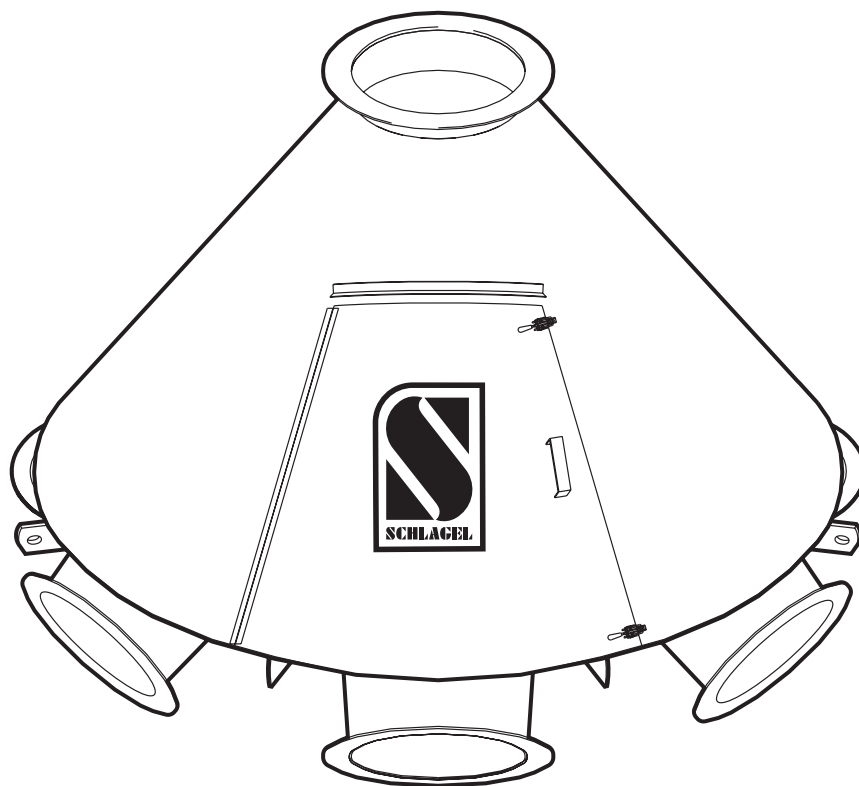


# SYNCROSET™ DISTRIBUTOR

## Installation and Operation Manual



# SCHLAGEL

*Manufacturers of Innovative Materials Handling Equipment since 1957.*

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## INTRODUCTION

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This distributor has been designed to give you many years of faithful service. To obtain all of the benefits built in to it, the following instructions should be read and adhered to as closely as possible during installation. These instructions are suggestions to help the installer determine the best way to mount the unit.

## USE OF MANUAL

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This manual provides installation, operation, service recommendations and replacement parts identification for Schlagel SyncroSet Distributors.

Each section of the manual is fully illustrated for fast, accurate reference. It is highly recommended that this manual be read thoroughly by those who are responsible for the installation, operation and maintenance of this distributor. Refer to the Table of Contents, on this page for the location of specific information.

As new information and equipment become available, service and parts bulletins will be issued by Schlagel, Inc. So that they will be readily available for reference, all bulletins should be inserted with this manual. This manual covers standard distributor equipment only. For any items or special equipment not covered in this manual, please consult our service department for recommendations or instructions regarding this equipment.

**INFORMATION SERVICE**

Enclosed with your distributor shipment is our packing list that details all items on your order. This packing list should be saved for future reference. The invoice number shown on this document is the same as the serial number shown on your distributors I.D. tag. If you ever need to call the factory for parts or service it is very helpful to have this serial number available. Please record the information below now and save this booklet for future reference.

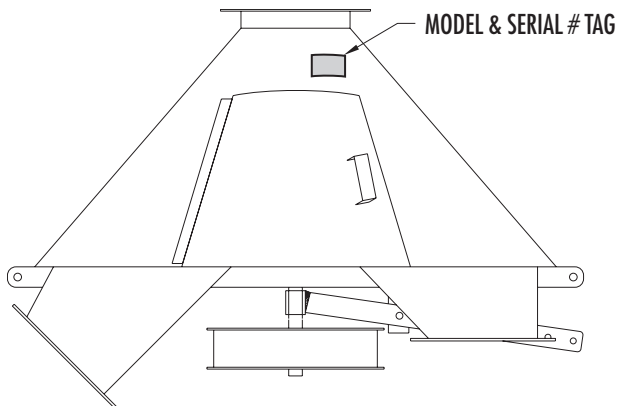
Date of Purchase: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Model: \_\_\_\_\_

Purchased from: \_\_\_\_\_

Write or Call: Schlager, Inc.  
 491 North Emerson Street  
 Cambridge, MN 55008  
 (763) 689-5991 or 1-800-328-8002



**UNCRATING AND INSPECTION**

Your distributor has been carefully checked and operated before shipment from our factory. In the event that any parts are missing or damaged, please notify us immediately and also have the delivering carrier note this is on the Bill of Lading.

**IMPORTANT**

*All claims for shipping damages must be noted by the consignee at the time of delivery and filed with the transportation company.*

**DISTRIBUTOR HARDWARE PACKING LIST**

DESCRIPTION	QTY.
CABLE WHEEL & MOUNTING BRACKET	1
LIFT PEDAL	1
HOT HOUSE PULLEYS	3
SIDE PULLEYS	3
WHEEL BRACKET MOUNTING CLIPS	2
3/16" AC CONTROL CABLE	1
CABLE CLAMPS	6
NUMBER CARD	1

**SAFETY CODE**

**⚠ WARNING ⚠**

The icon shown below was proposed as a safety alert symbol by the Farm and Industrial Equipment Institute (FIEI) and approved by the American Society of Automotive Engineers (ASAE) and others for the purpose of calling attention to safety precautions which if not heeded might lead to bodily injury.

*Please read instructions carefully and follow the instructions exactly wherever this symbol appears in the manual.*

**⚠**



**LOOK FOR THIS SAFETY LABEL**

**⚠ WARNING ⚠**

**ROTATING SPOUT CAN CAUSE SEVERE INJURY**

LOCK OUT  
POWER BEFORE  
OPENING DOOR

**⚠ DANGER ⚠**

**FALLING INTO TURNHEAD OUTLET WILL CAUSE SEVERE INJURY OR DEATH**

FOLLOW CONFINED  
SPACE ENTRY  
PROCEDURES

### INSTALLATION

1. The distributor has at least three (3) support bars protruding from the side of the housing depending on the number of outlets supplied. These are to be used for supporting the distributor when the spouting is not rigidly fastened at the bottom to support the distributor. In such a case use threaded rod from these bars to a convenient point where movement of the building or support tower will not effect misalignment with the feeding of the leg or conveyor.

#### **IMPORTANT**

*It is very important to provide access to the distributor inspection door for setup of the unit and for future maintenance requirements. We strongly recommend a platform below the unit for access to these areas.*

2. Rotate the distributor so that the inspection door is at an accessible point and level the unit using the threaded rods.
3. Spout the outbound ducts, preferably using reversible elbows to obtain the desired angle on the spout. Connect the opposite duct of the distributor from the one previously spouted to limit stresses put on the base of the unit.
4. Connect the inlet from the conveyor or leg, but do not apply extreme pressure to the inlet collar.

**NOTE** - *The inlet should be connected only after the spouting has been run to prevent tilting the inlet collar. If this happens the rotating spout may bind on the inlet collar.*

*We realize that in actual field assembly the first step is frequently connecting the inlet of the distributor to the leg and that this is generally the easiest way to establish the mounting location. If using this method be very careful when spouting the unit to not distort the body or the inlet collar. We receive many more complaints about inner spouts binding in the distributor when installed in this fashion.*



**CAUTION**



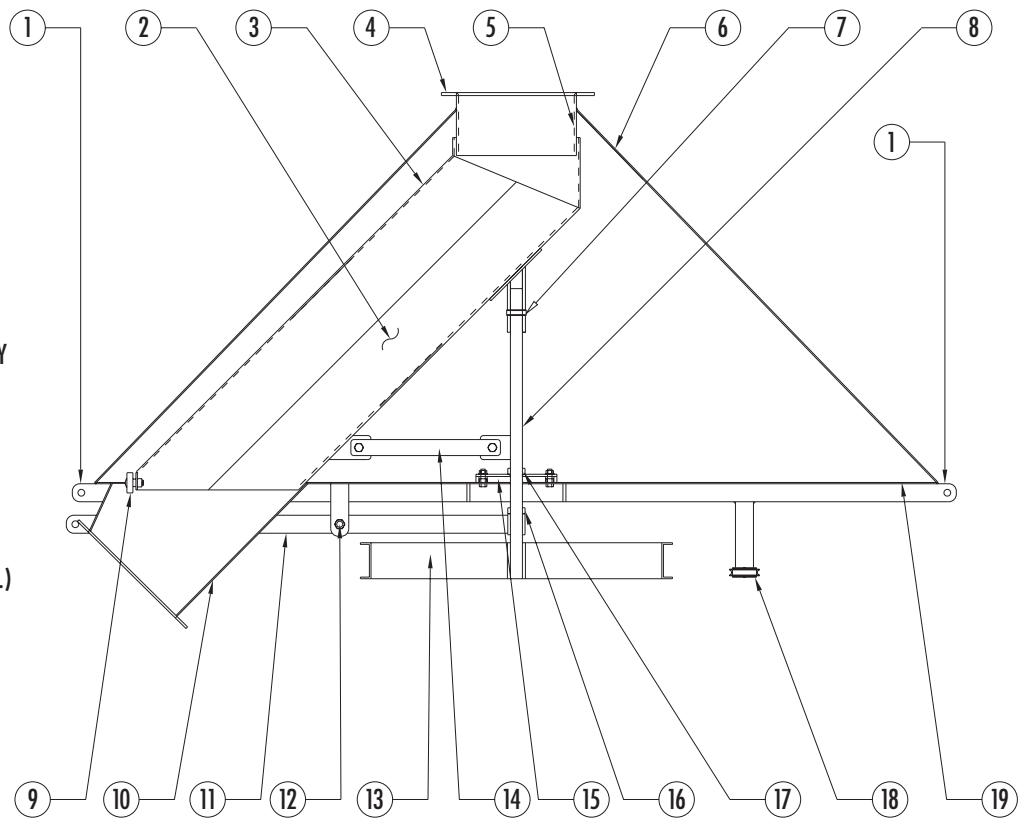
The distributor is not designed to support spouting.

5. After the spouts have been connected and before the control cable has been run, operate the distributor by hand to see if it works satisfactorily. If difficulties are encountered, remedy them at this time so that if it works hard from the remote operator, after it has been connected, the trouble will be found in the run of the cable
6. Position the hand control wheel bracket at a level comfortable for the operator and on a surface that will allow routing of the cable between the hand control and the cable wheel on the distributor. Use the small formed channel clips to hold the wheel bracket in place and position them about halfway on each half of the bracket to allow the wheel assembly to move up and down for cable tensioning.
7. Rotate the inner spout one direction until it stops against either the inside spout stop on a full round distributor or else the flat of a flat back distributor. Wrap the cable wheel on the distributor and also the cable wheel on the control wheel housing. The cable should be wrapped at least one complete turn around either cable wheel before putting the cable clamp in the wheel to hold the cable in place. The initial direction of wrap around the wheel is determined by which way the wheel has to rotate in order to move the spout away from its stopped position and which side of the cable wheel you started your initial wrap on. The intent here is to avoid having the cable clamps cause any binding of the cable on either wheel as it rotates the inner spout from stop to stop.  
  
The cables off the cable wheel of the distributor will run through the fixed double pulley on the underside of the distributor and then over to the pulleys you have selected for directing the cables to the hand control wheel.
8. Keep in mind that each wrap around the wheel is about 39" of cable on small wheels and 76" on large wheels. This means that you will need slightly over these amounts between the cable clamps at the cable splice and any obstructions such as pulleys when the ends of the cable are finally connected together.

9. Make certain that any pulleys used in the cable line are properly positioned to prevent rubbing or binding of the cable. Lubricate the cable where it follows the pulleys. It is important to use as short a cable run as possible with as few turns around pulleys as possible to provide the best "feel" to the operator when moving the distributor spout.
10. Tighten the cable by pulling down on the control wheel bracket and then tighten the bolts in the channel clips. **Be certain that the cable is not excessively tight as this will cause improper operation.**
11. Run the cable from the foot pedal to the lift lever on the distributor in a similar manner.
12. A set of number cards has been provided for the field placement of a reference number onto the face of the wheel that the pointer is pointing at. The inner spout should be moved to each of the duct openings and then a corresponding number placed on the wheel face.
13. Once everything is in place and set you should run through each spout position to insure that the actual operator will be able to "feel" when the bearing on the end of the spout is locked in a duct.

**SYNCROSET DISTRIBUTOR PARTS LIST**

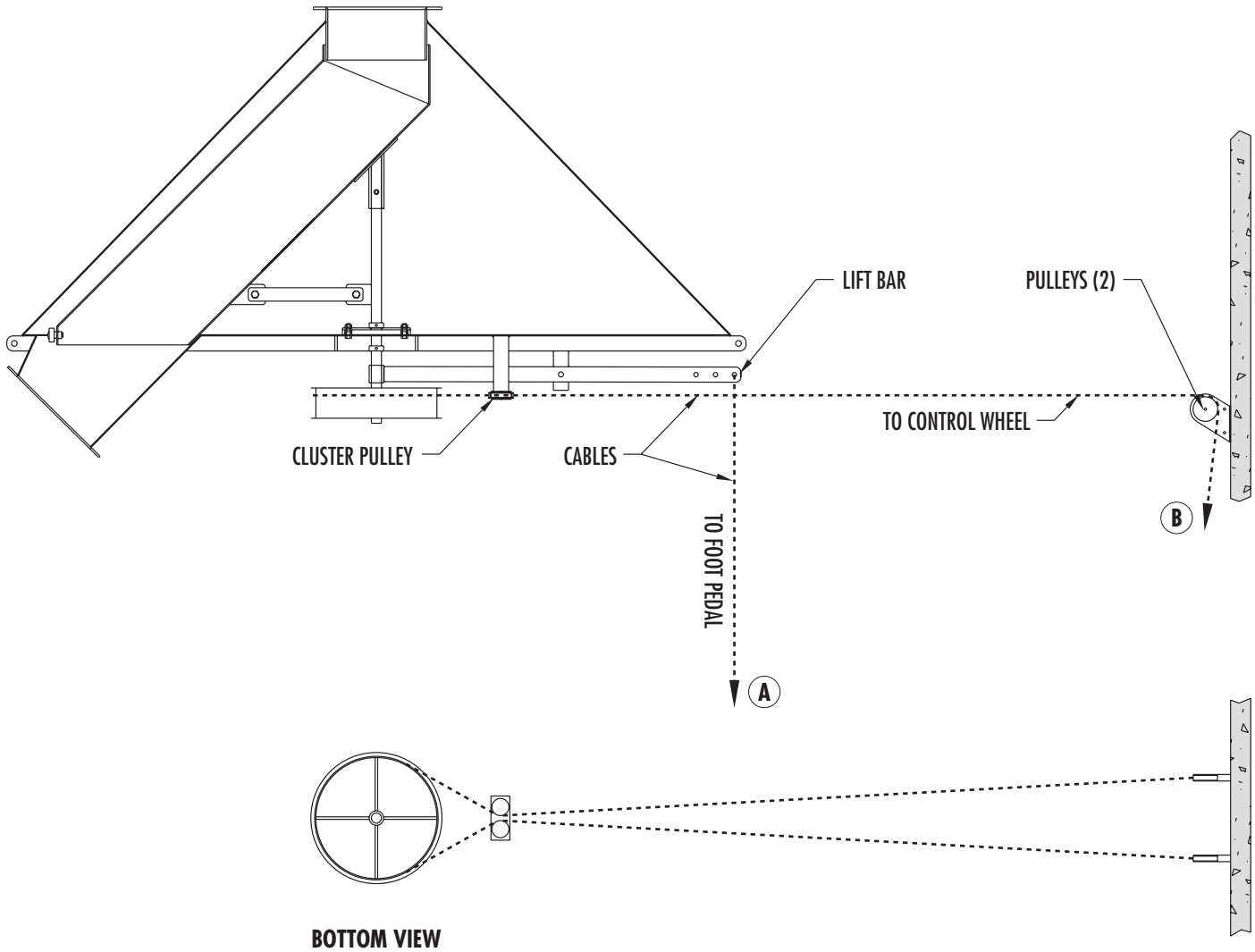
ITEM #	DESCRIPTION
1.	SUPPORT BAR
2.	SPOUT LINER
3.	SPOUT
4.	FLANGE (TYPICAL)
5.	INLET COLLAR
6.	CONE HOUSING
7.	3/8" ROLL PIN
8.	SPOUT SHAFT
9.	INDEX BEARING ASSEMBLY
10.	DUCT
11.	LIFT BAR
12.	LIFT BAR PIVOT POINT
13.	CABLE WHEEL
14.	SPOUT BRACE (FOR SPOUT OVER 60 LBS.)
15.	UHMW SEAL
16.	LIFT SET COLLAR
17.	SHAFT STOP SET COLLAR
18.	FIXED DOUBLE PULLEY
19.	DISTRIBUTOR BASE



## SECTION 2 - ASSEMBLY AND INSTALLATION

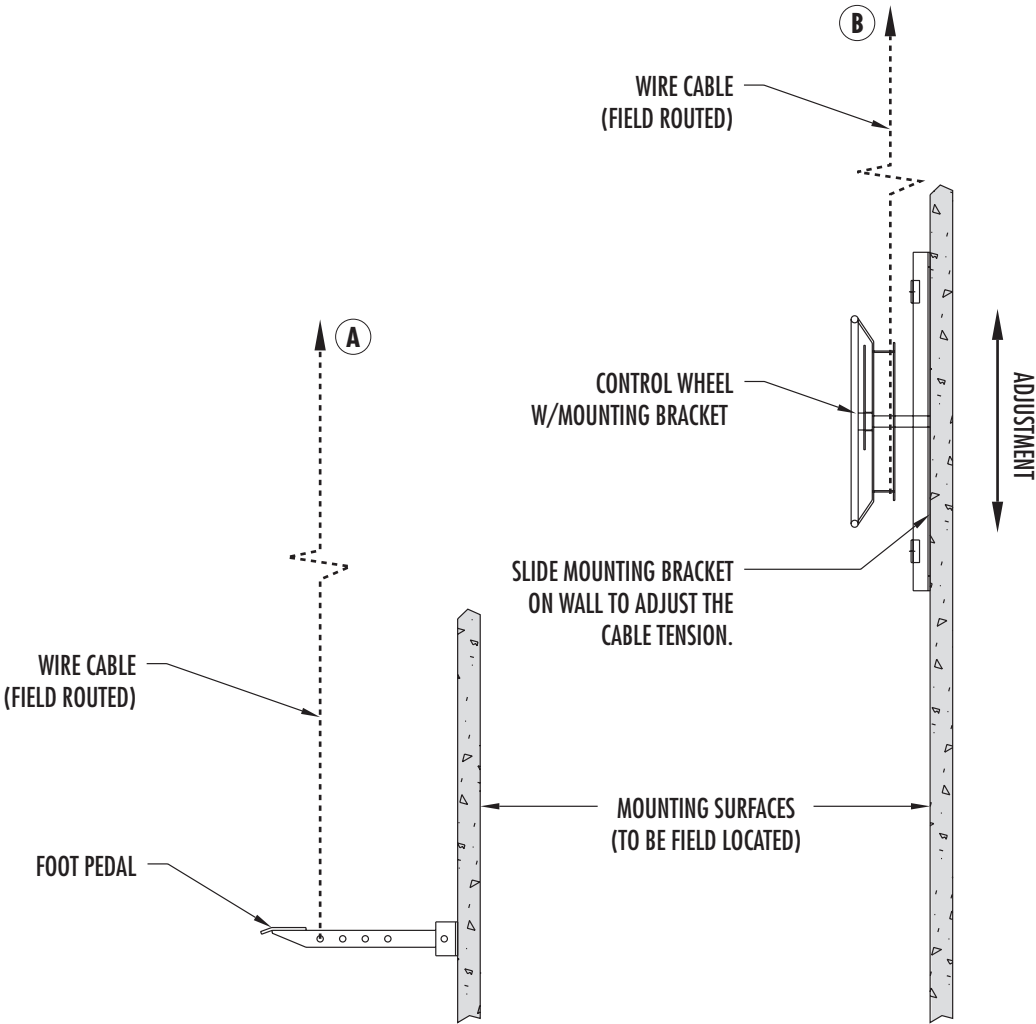
### TYPICAL CABLE RUN LAYOUT

Assembly at distributor



TYPICAL CABLE RUN LAYOUT

Assembly at operator station



### OPERATION

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1. Lift the revolving spout with the lift pedal and turn the control wheel to move it near the desired position. Release the pedal and continue to turn the wheel. This will move the spout over the duct selected and will then allow the spout to drop into the duct opening.
2. With the SyncroSet Distributor the operator does not have to be familiar with the "feel" of the distributor as the spout will roll into the duct with very little effort, and when the control wheel does not move the spout is set.



**TROUBLE SHOOTING****PROBLEM #1 SPOUT TURNS HARD****A-CAUSE:** CONTROL CABLES TOO TIGHT.**REMEDY:** LOOSEN CABLE UNTIL POINTER ON CONTROL WHEEL MOVES ½" ON EITHER SIDE OF NUMBER WITH MODERATE PRESSURE.**B-CAUSE:** CABLES NOT LINED UP WITH PULLEYS.**REMEDY:** SEE (STEP 9) OF INSTALLATION**C-CAUSE:** INLET COLLAR TILTED. SEE (STEP 4) OF INSTALLATION**REMEDY:** REMOVE INLET CONNECTOR AND STRAIGHTEN COLLAR WITH ANGLE IRON CLAMPED ACROSS FLANGE UNTIL SPOUT MOVES FREELY.**D-CAUSE:** PLUGGED SPOUT.**REMEDY:** DRAIN MATERIAL FROM SPOUT OR FORCE TO ANOTHER DUCT POSITION.**PROBLEM #2 SPOUT DOES NOT DROP****A-CAUSE:** INLET COLLAR TILTED.**REMEDY:** SEE ABOVE (PROBLEM #1 C-CAUSE)**B-CAUSE:** LIFT BAR TOO TIGHT.**REMEDY:** LOOSEN PIVOT BOLT.**C-CAUSE:** CONTROL CABLES TOO TIGHT.**REMEDY:** SEE ABOVE (PROBLEM #1 A-CAUSE)**D-CAUSE:** TOO MUCH WEIGHT FROM LIFT PEDAL CABLE.**REMEDY:** EITHER PUT A SPRING ASSIST UP BY THE LIFT BAR TO OVERCOME SOME OF THE CABLE WEIGHT OR HANG A COUNTERWEIGHT FROM A SPOKE OF THE DISTRIBUTOR CABLE WHEEL.**MAINTENANCE**

1. Under normal operating conditions the SyncroSet Distributor will not need attention as it is entirely self cleaning. All that is necessary to keep the unit functioning as it did when it was installed is to keep the remote operating cables in good condition and at the proper tension.
2. Occasionally check the revolving spout and associated wear points as you check other components in a scheduled maintenance program. Although this distributor is a most important component in your material flow, its superior operation will soon be taken for granted.

### INNER SPOUT REMOVAL

#### Manually Operated Distributors

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- A. Open the door and rotate the inner spout to one side so that you have access through the door to where the center shaft connects to the stub pipe that is welded to the spout.
- B. Remove any spout brace bar (if there is one) going to the center shaft.
- C. Mark one side of the center shaft and the short pipe it fits into with some permanent or temporary marking. This will prevent you from being a half turn off at reassembly and thus maintain the corrected relationship of your bin markings in the distributor control wheel.
- D. Remove the roll pin at the top of the spout shaft. The roll pin is 3/8" diameter.
- E. Measure the distance from the top of the shaft's set collar (the one located just above the base of the distributor) to the underside of the stub pipe where you just removed the roll pin. Write this dimension down so that it can be returned to its original position during re-assembly. Support the spout securely while loosening the setscrew of this collar. Slide this set collar up 4 to 6" and re-tighten the setscrew.
- F. Slide the shaft down and out of the stub pipe on the spout.
- G. Rotate the spout to the door opening and slide out.

*Reverse the above steps to reinstall the inner spout. When replacing the spout make certain that the set collar (on the top side of the base) is set back to the same dimension you had written down. This set collar controls how far the inner spout drops in the duct hole when the foot pedal is released. This setting would normally place the center of the index bearing on the end of the spout even with the base.*





**Please contact our service department for help with any concerns or questions about your SyncroSet Distributor.**

**SCHLAGEL**

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