

# SYNCROSET® DISTRIBUTOR

## Installation and Operation Manual



### EDI Electric Distributor

# SCHLAGEL

*Manufacturers of Innovative Materials Handling Equipment since 1957.*

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# TABLE OF CONTENTS

## SECTION 1 - GENERAL

**Pages** 1 . . . . . Introduction  
1 . . . . . Use of Manual  
1 . . . . . Safety Code  
1 . . . . . Information Service

## SECTION 2 - ASSEMBLY AND INSTALLATION

**Pages** 2 . . . . . Uncrating and Inspection  
2 . . . . . Installation  
3 . . . . . Parts List and Drawing

## SECTION 3 - OPERATION AND MAINTENANCE

**Pages** 4 . . . . . Operation and Trouble Shooting  
4 . . . . . Maintenance  
4 . . . . . Spout Removal  
5 . . . . . Gear Reducer Information  
5 . . . . . Brake Adjustment

## SECTION 4 - OPTIONAL EQUIPMENT

**Pages** 6 . . . . . TENV and Optional Brake Heater

### INTRODUCTION

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

This manual provides installation, operation, service recommendations and replacement parts identification for Schlagel SYNCROSET EDI ELECTRIC DISTRIBUTOR.

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, above 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.

### SAFETY CODE

 **CAUTION** 

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.*



### 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: Schlagel, 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.*

## INSTALLATION

3.1 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 and the electric drive mechanism for setup of the unit and for future maintenance requirements. We strongly recommend a platform below the unit for access to these areas.*

3.2 Rotate the distributor so that the inspection door is at an accessible point and level the unit using the threaded rods.

3.3 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.

3.4 Connect the inlet from the conveyor or leg, but do not apply extreme pressure to the inlet collar. 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.

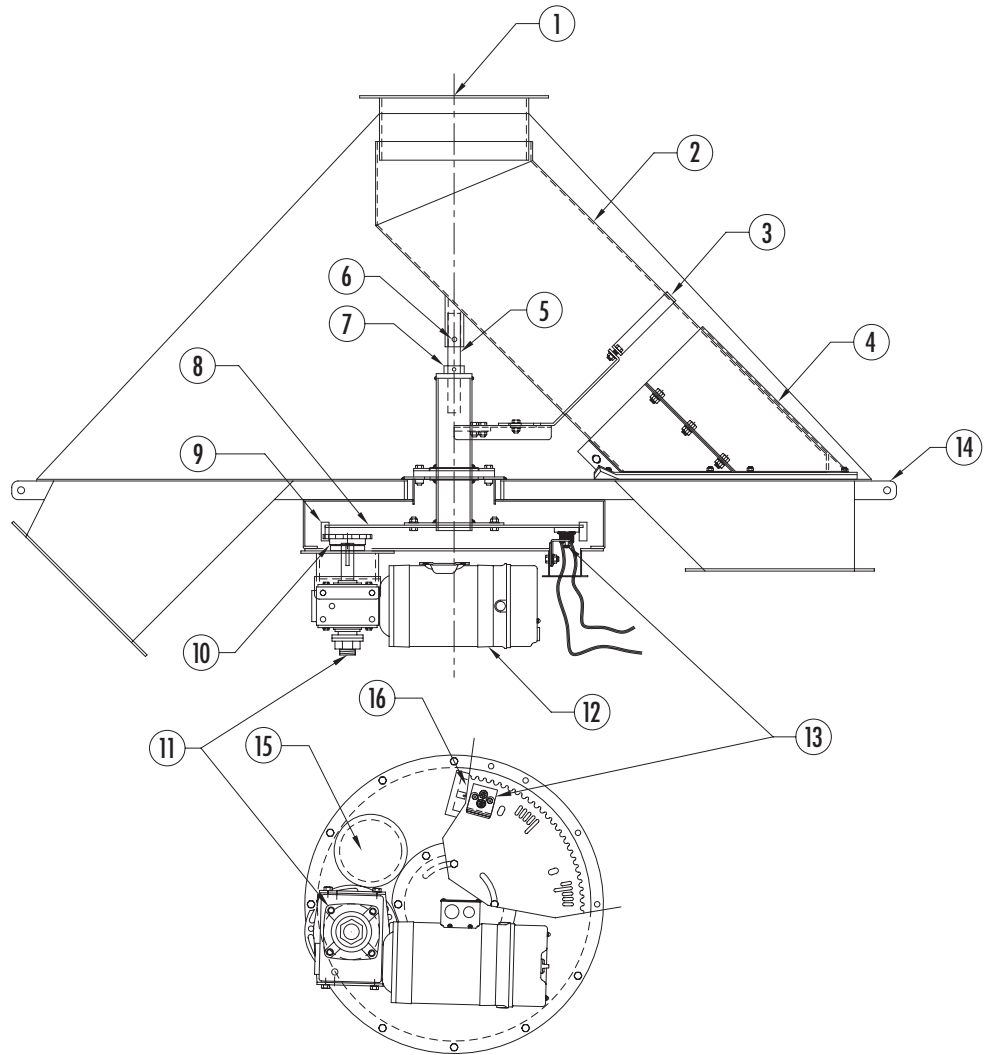
**NOTE** - We realize that in actual field assembly the first step is frequently connecting the inlet of the distributor to the leg and that this is generally the easiest way to establish the mounting location. If using this method be very careful when spouting the unit to not distort the body or the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

3.5 Assemble the brakemotor to the gear reducer and connect the wiring.

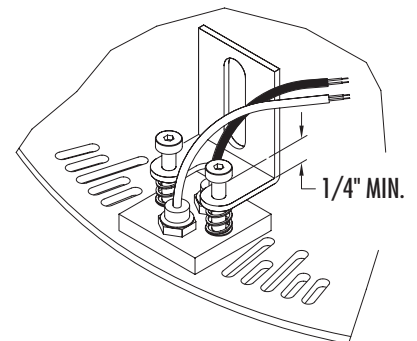
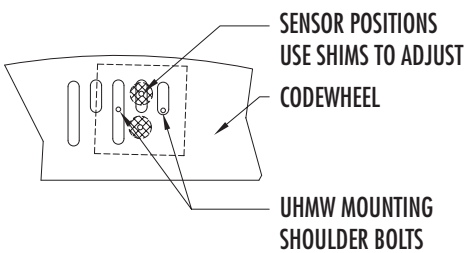
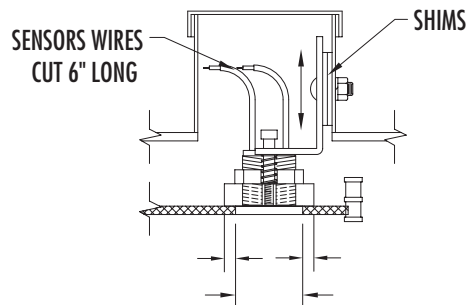
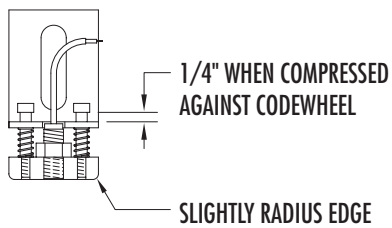
## SECTION 2 - ASSEMBLY AND INSTALLATION

### ELECTRIC DISTRIBUTOR PARTS LIST

ITEM #	DESCRIPTION
1.	INLET COLLAR
2.	INNER SPOUT
3.	SPOUT BRACE
4.	DUST SEAL
5.	SPOUT SHAFT
6.	ROLL PIN
7.	CLAMPING COLLAR
8.	CODE WHEEL
9.	DOUBLE #50 ROLLER CHAIN
10.	#50SH18 SPROCKET
11.	HAMPTON GEAR REDUCER
12.	ELECTRIC MOTOR (LEESON OR RELIANCE)
13.	SENSOR ASSEMBLY (SEE DETAIL)
14.	SUPPORT BAR
15.	RUBBER PLUG
16.	CONDUIT BOX



### SENSOR ASSEMBLY DETAIL



1- TURK SENSOR #F1 } REQ'D PER ASSEMBLY  
1- TURK SENSOR #F2 }

## OPERATION AND TROUBLE SHOOTING

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4.1 This distributor manual is intended to deal only with the mechanical portions of your distributor.

Included inside the control box of every distributor is the following:

- 1- EDI Quick-Start Manual
- 1- EDI Operation Manual
- 1- EDI Training and Instruction Video

These learning and instructional materials should provide all the information necessary to complete set up of the electrical control system. If you have any questions regarding setup, programming or trouble shooting make sure you have reviewed all this information. If your problem is not addressed in any of these, or you can not find a solution to your problem, contact the factory for assistance.

## MAINTENANCE

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5.1 Under normal operating conditions the SyncroSet Electric Distributor will need very little maintenance. It is recommended that the oil in the gear reducer be changed regularly. See the information section on the reducer (Page #5) for more information.

Otherwise a periodic check of the inner spout and other wear areas to make sure nothing is worn out should be the only regular attention required.

## INNER SPOUT REMOVAL

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### Electrically Operated Distributors with Bottom Drive

6.1 Turn off and lock out power to the distributor motor to prevent anyone from operating the unit while you are servicing it.

6.2 Rotate the inner spout to a duct close to the inspection door on the cone.

6.3 If you have a spout brace going to the center pipe remove it at this time. Some spout braces are made from two sections and are adjustable. If you must unbolt this adjustable connection to remove the brace make sure you mark it so it can be re-assembled in the same location.

6.4 Mark the center shaft and the stub pipe on the spout to prevent the spout from being re-installed a half turn off and thus maintaining the proper relationship of spout and duct locations on the controller. Also mark the shaft at the top of the clamping collar that is just above the large pipe sticking up through the distributor base.

6.5 Remove the roll pin at the top of the spout shaft.

6.6 Rotate the spout in front of the inspection door. Remove the front half only of the spout dust seal. It is not necessary to remove the back half or the UHMW bottom of the seal for spout removal.

6.7 Move the spout to a position that allows you entrance through the door.

6.8 Loosen the bolt in the clamping collar. Drop the shaft until it just sticks out of the clamping collar and re-tighten the bolt. Lift the outside (lower) end of the spout enough to slide the spout off the inlet collar. Move the spout over to the door and slide out.

6.9 Reverse the above steps to re-install the inner spout. Make sure to line up both marks on the shaft for proper height and location over the correct outlet duct.

6.10 Reconnect electrical power and reset the controller. Double check for proper alignment of the spout at the outlet duct and adjust if necessary (see the EDI operation manual if this is necessary).

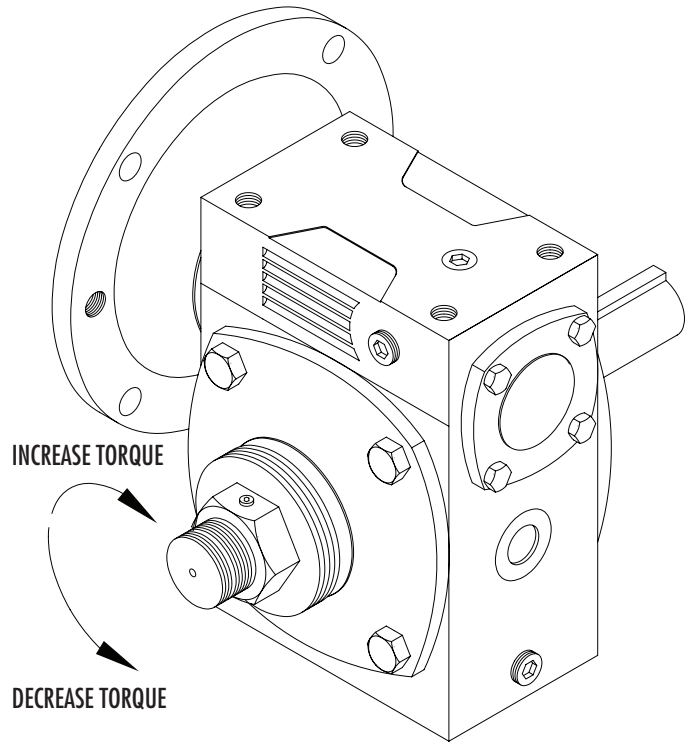
**HAMPTON GEAR REDUCER**

**Hampton Worm Gear Reducer 100:1 Ratio, 56C Frame**

This reducer is equipped with a built-in slip clutch. In the event of a mechanical blockage of the inner spout, the motor will keep running without damaging the drive train. The slip clutch is set at the factory to 45 ft/lbs. In the event the slip clutch needs to be field adjusted, loosen the set screw (using a 5mm allen wrench) and turn the nut as shown using a torque wrench to the desired setting.

In an emergency situation where the electric control is not working, the distributor spout can be moved manually by releasing all tension on the clutch.

The reducer is filled with Mobil #1 75W-90 synthetic lubricant. This provides good service in most normal temperature ranges. As with any gear reducer, the oil should be changed in your normal routine maintenance schedule.

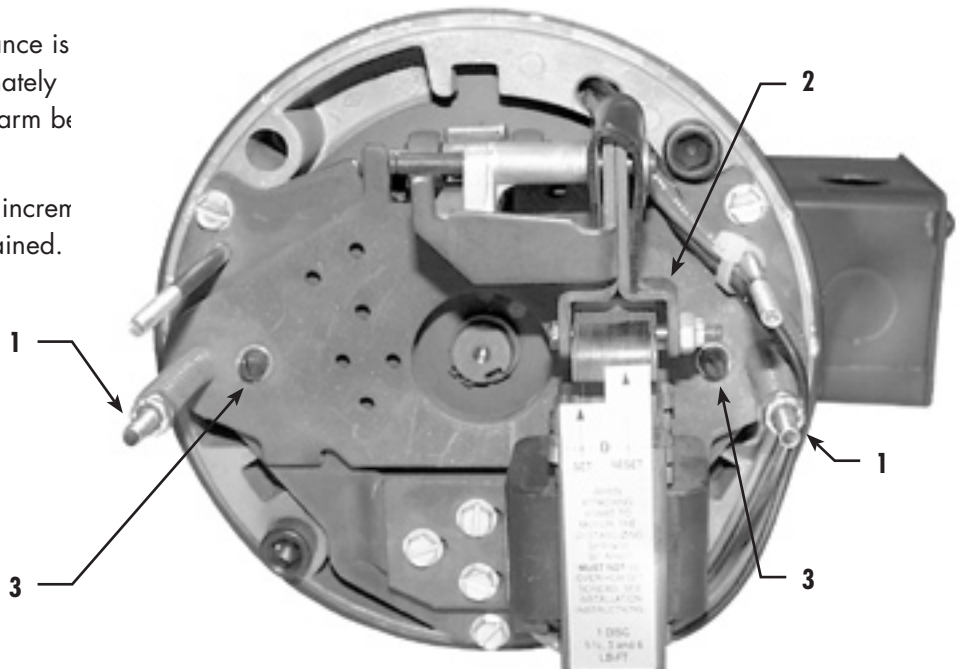


**BRAKE ADJUSTMENT**

**CAUTION**

Disconnect power before touching any internal part.

1. Should be 9/16" exposed thread behind loaded nuts.
2. Push solenoid in until slight resistance is solenoid gap should be approximately 7/16" to 5/8" this should place arm between set and reset marks.
3. Adjust each brake screw in small increments until proper operating gap is obtained.

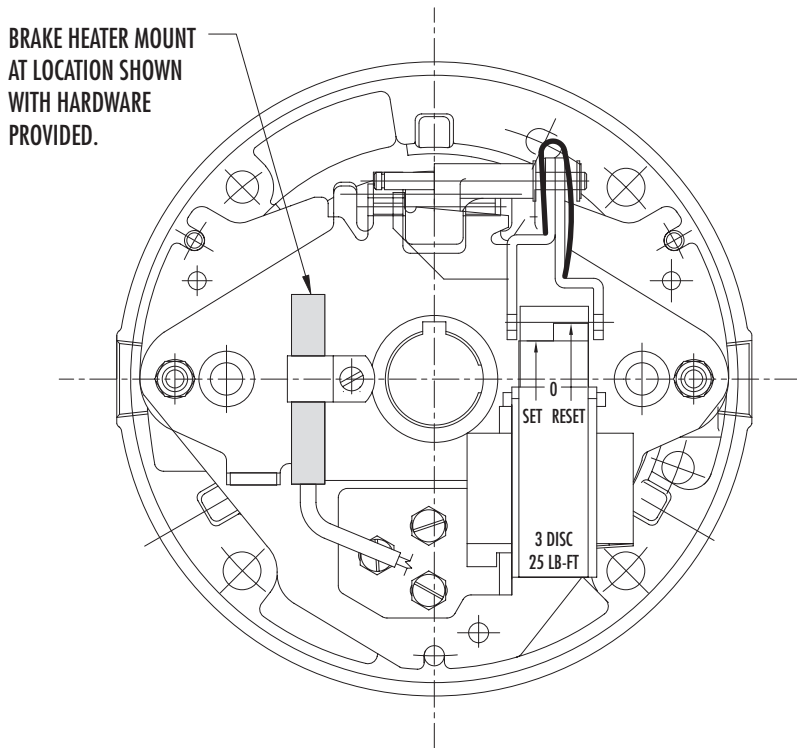


**WIRING FOR STANDARD LEESON 3 PHASE TENV  
BRAKEMOTOR #110670**

VOLTAGE	MOTOR WIRING				BRAKE WIRING		
	L1	L2	L3	JOIN	L1	L2	JOIN
LOW	T1, T7	T2, T8	T3, T9	T4, T5, T6	1 (RED) 3 (BLACK)	2 (RED) 4 (BLACK)	-
HIGH	T1	T2	T3	(T4, T7) (T5, T8) (T6, T9)	1 (RED)	2 (RED)	3 (BLACK) 4 (BLACK)

**OPTIONAL BRAKE HEATER**

**REQUIRES 110V SINGLE PHASE POWER**



CONTACT FACTORY FOR INSTRUCTIONS IF USING OTHER BRANDS OR EXPLOSION PROOF MOTORS



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

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