



# COOK

## Automatic Belt Tensioner Supplement I

ACE, ACSC, ACRU, VCR, and SRSH Units - Sizes 60 to 490

### INSTALLATION, OPERATION, AND MAINTENANCE MANUAL

This publication contains the installation, operation and maintenance instructions for the *Automatic Belt Tensioner*.

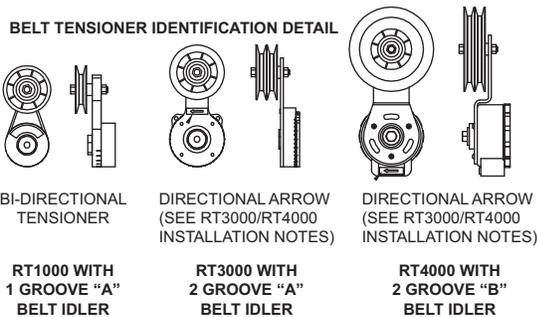
Carefully read this publication prior to any installation or maintenance procedure.

Loren Cook brochure, *Automatic Belt Tensioner*, provides additional information describing the equipment, fan performance, available accessories, and specification data.

For additional safety information, refer to AMCA publication 410-96, *Safety Practices for Users and Installers of Industrial and Commercial Fans*.

All of the publications listed above can be obtained from Loren Cook Company by phoning (417)869-6474, extension 166; by FAX at (417)832-9431; or by e-mail at info@lorencook.com.

For information and instructions on special equipment, contact Loren Cook Company at (417)869-6474. The Automatic Belt Tensioner uses sealed bearings which do not require maintenance and contains no user-serviceable parts. Do not disassemble the belt tensioner.



#### Installation

1. Set belt tensioner assembly on top flange of bearing plate and line up with the prepunched mounting hole. There could be several mounting holes to choose from. To select the optimum location for the tensioner, take the driven sheave and set it on top of the bearing plate centered on the shaft location. Use the closest hole to the driven sheave center without the tensioner's cylinder interfering with the driven sheave. With the tensioner centered over the mounting hole, bring a 3/8-16 x 1-1/4 wizz bolt up through the hole and thread it into the bottom of the tensioner.
2. Tighten the mounting bolt finger tight allowing tensioner assembly to rotate freely.
3. Align driver and driven sheaves with tensioner idler pulley. If driver sheave is too high on the motor shaft, remove motor plate from bearing plate. Replace carriage bolts with 5/16-18 x 1-1/4 wizz bolts. Insert bolts through motor plate mounting holes and thread 5/16-18 wizz nuts onto bolts and tighten fully. Now install motor plate onto upper slots on bearing plate with extra 5/16-18 wizz nuts. This will move motor shaft up

3/4" and still allow motor plate to clear bearing mounting bolts. (See Figure 1, page 2) **(Does Not Apply To Size 100)**

4. Install belt around all sheaves and rotate tensioner counterclockwise (clockwise on sizes 402-490) until belt feels tight and there is light spring pressure.
5. While holding tensioner at this position, use a marking pencil to make an alignment mark on the tensioner and the bearing plate so that the tensioner can be rotated back to the same position after removing the belt.
6. Remove the belt and then realign the marks on the tensioner and the bearing plate. Now rotate the tensioner arm counterclockwise (clockwise on sizes 402-490) approximately 1/2" past the mark on the bearing plate. While holding tensioner at this position, tighten mounting bolt fully.
7. Install belt by wrapping belt around tensioner idler pulley then use both thumbs to hold belt in idler pulley groove and push tensioner idler pulley clockwise (counter clockwise on sizes 402-490) towards the driver pulley. Then use index fingers to slip belt over the driver pulley and the driven pulley.
8. Do not use a screw driver to pry belts onto the pulley. Check tension by listening for excessive belt squeal at startup. Repeat steps 6 and 7.

#### Caution:

Do not use the top assembly nut to add additional tension as this may potentially cause damage the tensioner. It must be re-positioned per tensioning assembly instructions.

#### RT3000/RT4000 Installation Notes:

1. The RT3000 and RT4000 have a directional arrow to ensure proper installation. The arrow must always point toward the belt being tensioned. In this application, units with counterclockwise rotation point counterclockwise and clockwise rotation point clockwise.



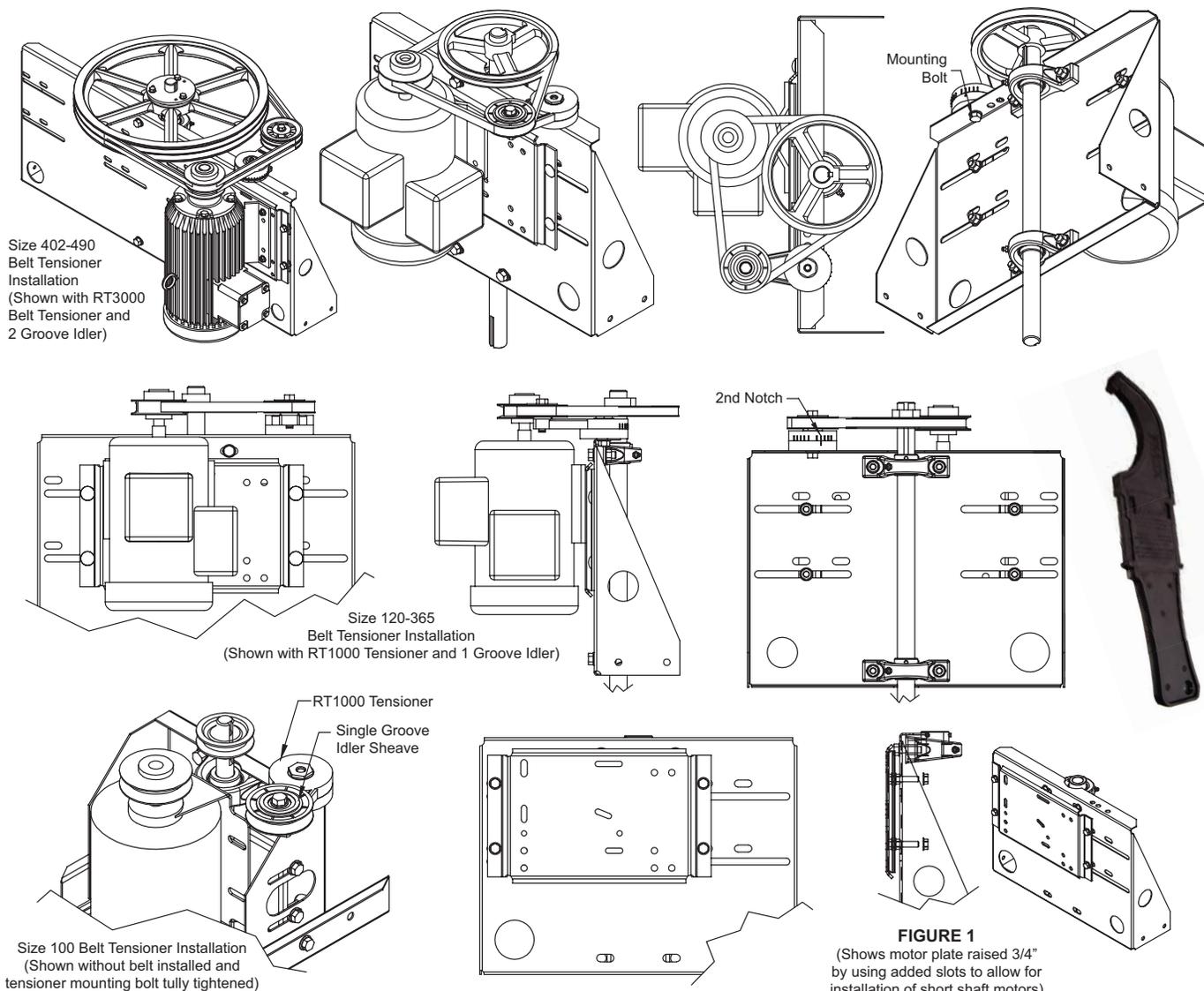
**Automatic Belt Tensioner**

(Size 402-490 units with counter clockwise rotation point clockwise and clockwise rotation point counter clockwise.) If arrow is pointing the wrong direction, remove the back of tensioner housing and the spring. Then flip the spring over, the spring's center "tail" must engage the slot in the center shaft. Then push out the directional arrow piece located in the arm assembly, and reverse the arrow so it points the opposite way and snap in place. Note that if the arrow piece is not pointing in the correct direction, the tensioner cannot be reassembled.

2. The RT4000 tensioner requires considerable force to overcome its spring tension. If force is so strong that the procedure given in Note 7 won't work, use the following procedure.

With tensioner mounting bolt only finger tight, rotate tensioner back so that belts can be installed easily. Now rotate tensioner arm until belts begin to tighten and you feel light spring tension. Hook in provided spanner wrench and rotate tensioner arm until alignment marks are 3/4 apart. While holding spanner wrench securely at this position, tighten tensioner mounting bolt fully and remove spanner wrench.

3. Once installed, the RT4000 tensioner has considerable force. The tensioner comes with a limited-use spanner wrench. The spanner wrench must be used to hold the tensioner base when loosening the mounting bolt.



**Limited Warranty**

Loren Cook Company warrants that your Loren Cook fan was manufactured free of defects in materials and workmanship, to the extent stated herein. For a period of one (1) year after date of shipment, we will replace any parts found to be defective without charge, except for shipping costs which will be paid by you. This warranty is granted only to the original purchaser placing the fan in service. This warranty is void if the fan or any part thereof has been altered or modified from its original design or has been abused, mis-used, damaged or is in worn condition or if the fan has been used other than for the uses described in the company manual. This warranty does not cover defects resulting from normal wear and tear. To make a warranty claim, notify Loren Cook Company, General Offices, 2015 East Dale Street, Springfield, Missouri 65803-4637, explaining in writing, in detail, your complaint and referring to the specific model and serial numbers of your fan. Upon receipt by Loren Cook Company of your written complaint, you will be notified, within thirty (30) days of our receipt of your complaint, in writing, as to the manner in which your claim will be handled. If you are entitled to warranty relief, a warranty adjustment will be completed within sixty (60) business days of the receipt of your written complaint by Loren Cook Company. This warranty gives only the original purchaser placing the fan in service specifically the right. You may have other legal rights which vary from state to state.

**LOREN COOK COMPANY**

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