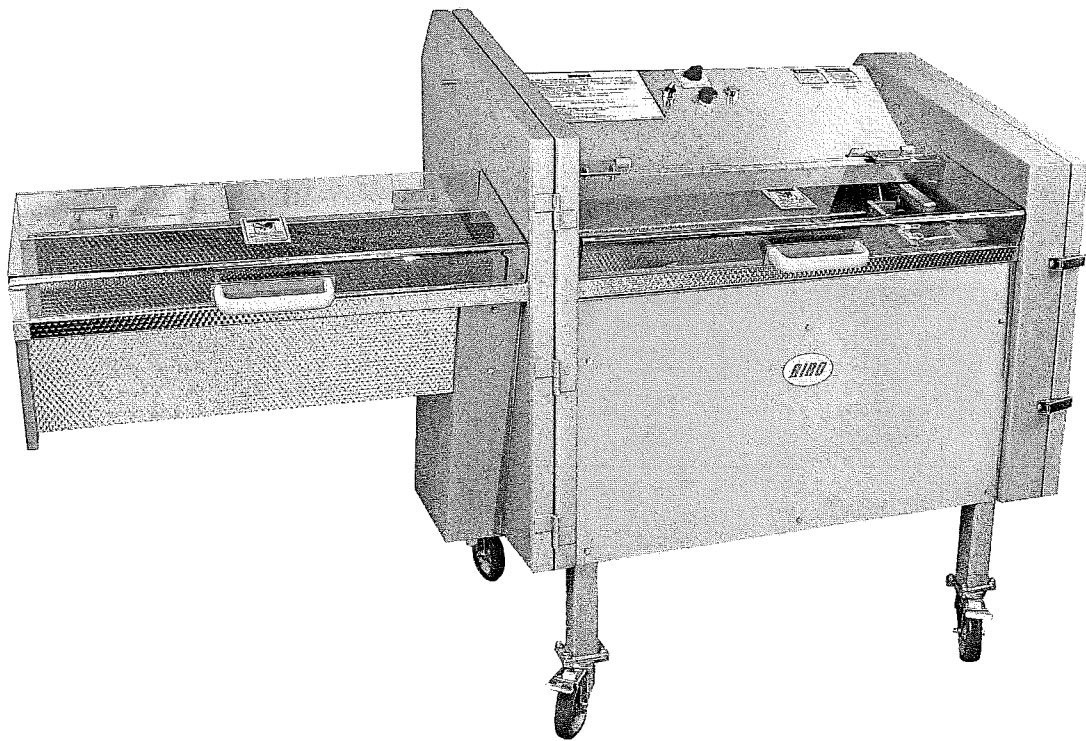


BIRO®

Model 109PCM HORIZONTAL SLICER

Parts List, Installation and Operating Instructions



*** IMPORTANT SAFETY NOTICE ***

This Manual contains important
Safety Instructions which must be
strictly followed when using this equipment.

ITEM NO.: TBA-352

3/29/09

INSTALLATION

1. Read this Manual thoroughly before installation and operation. Do not proceed with installation and operation if you have any questions, or do not understand anything in this manual. Contact your Local Distributor or Biro Mfg. @ 419-798-4451.
2. Install Machine on a level, solid, non-skid surface in a well-lighted work area away from children and visitors.
3. Lock the Casters in the fixed position before operating machine.
4. Electrical supply must be connected correctly, and properly grounded. The voltage must match the unit voltage as labeled. See Electrical Specifications, or contact Biro. Provide serial number.
5. Check the Draw Lever by opening the Clutch Door on the right hand side of the unit. Make sure the 9/16 hex head fastener is tight on the eccentric hub and the linkage arm adjustment handle is tight.
6. Operation; turn Main Switch (Red Handle) "ON". Close the blade door, clutch door and covers. Twist & Pull the emergency stop into the "out" position. Open one cover and close again to "initiate" the electronics. The Slicer is now operational.
7. The blade must have a sharp smooth edge. The blade is 5mm (.197) thick and replacement blades must also be 5mm thick. Rotate the blade manually to ensure proper clearance. This procedure must be performed on initial installation and with all blade replacements. Every time a blade is replaced, turn it at least one revolution by hand, by Pressing and Holding the "BRAKE RELEASE" button with your left hand. Open the Blade Door with your right hand and rotate the back, flat edge of the blade clockwise. The blade may also be turned by hand to the most convenient position for disassembly, assembly, removal of product scraps, cleaning, etc...
8. Check Blade Rotation; the blade must travel downward through the product. When facing the blade it must rotate clockwise. Single rotation may be achieved by selecting "JOG" and pressing the "Green Start" button. The direction of rotation may be changed by interchanging any two phase leads within the plug. CAUTION! Do not interchange the ground lead. Note: Blade rotation should be changed only by a recognized Biro representative or a certified electrician.
9. To move the Product Pusher Assembly, squeeze the hand lever which disconnects the Product Pusher from the feed screw. The Product Pusher can then be freely moved by hand left or right. When the hand lever is released, the Feed Screw will engage, and the Product Pusher will advance automatically. Allow 2 or 3 blade revolutions for Product Pusher to positively engage.
10. Product to be cut must be placed with its straight side against the loading chamber wall, toward the front edge, nearest the operator. Engage the product securely to the Product Pusher Gripper.
11. If Product does not fill the Loading Chamber width by 70%, use the Side Product Deflector, item number PC103. If the Product width is over 70% remove the Side Deflector by depressing the release button, and sliding the deflector to the right.

OPERATION

Product should be placed in the Loading Chamber with its straight side against the loading chamber wall, toward the front edge, nearest the operator. Engage the product securely to the Product Pusher Gripper. Product must advance toward the blade.

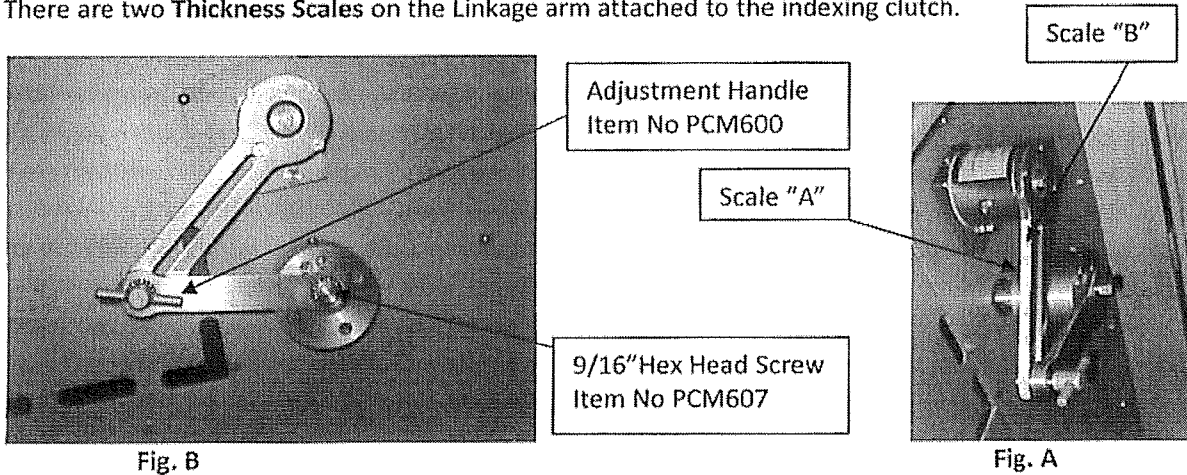
Turn the Main Disconnect Switch (Red Handle) "ON".

Turn Selector switch to "RUN".

To adjust cutting thickness: Open the Clutch Door on the right hand side of the unit.

The Thickness can be varied from 1/16" (1.6mm) to 1-1/8" (28.6mm).

There are two Thickness Scales on the Linkage arm attached to the indexing clutch.



Scale "A"- the inside thickness scale range is 1/16" (1.6mm) to 3/8" (6.4mm)

Scale "B"-the outside thickness scale range is 5/16" (7.9mm) to 1-1/8" (28.6mm)

To adjust the Thickness Range on scale "A"; Loosen the 9/16" hex head screw, item number PCM607, attaching the Draw-Lever to the eccentric hub with a box-end wrench. Place the 9/16" hex head screw into the threaded hole marked "A" on the Eccentric Hub and Tighten.

The Slicer is ready for final Thickness Adjustment.

EXAMPLE A: To obtain a 3/8" (6.4mm) Thickness on the "A" scale, loosen the Linkage Arm Adjustment Handle, item number PCM600, slide the handle with the indicator to the 3/8" mark on scale "A" and tighten the Adjustment Handle.

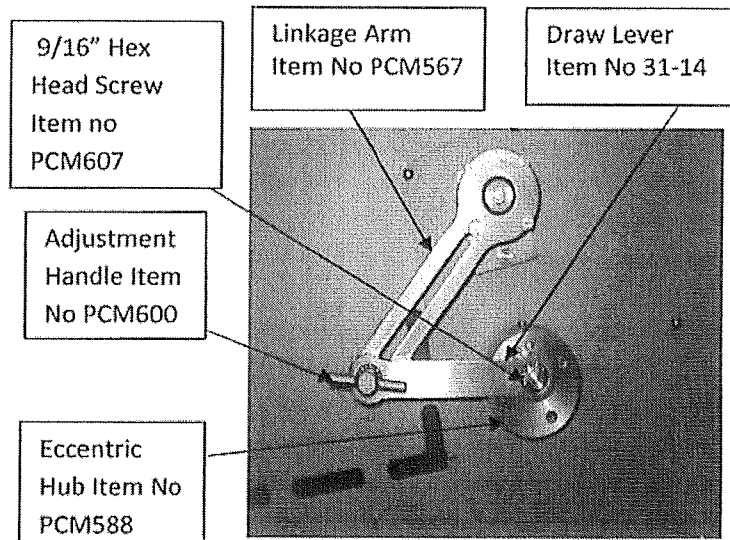


Fig. B

EXAMPLE B: To obtain a 7/8" (22.2mm) Thickness on the "B" scale, loosen the 9/16" hex head screw, item number PCM607 located on the eccentric hub, item number PCM588. Move the 9/16" hex head screw to the threaded hole marked "B" on the Eccentric Hub and retighten. Loosen the Linkage Arm Adjustment Handle, item number PCM600, slide the handle with the indicator to the 7/8" (22.2mm) mark on Scale "B" and retighten the adjustment handle. The Slicer is now ready to cut product at 7/8" (22.2mm) thick.

Press the **Green Start Button**.

Product will advance toward the blade automatically in thickness increments as adjusted above. When the Product Pusher Assembly has completely advanced to the left, the slicer will shut off.

Open the Loading Chamber Cover. Squeeze the hand-lever and move the Product Pusher Assembly to the right to the desired location for reloading the next product to be processed.

Open the Receiving Chamber Cover and remove the cut product.

Close the Receiving Chamber Cover.

Clean the Product Gripper of any product end surplus.

Load more product, and repeat the previous steps.

"JOG" Mode- This selection is used for a single-rotation (stroke) of the blade. It is used for a specific cut-off length without using the Product Pusher.

Brief Operating Sequence:

Turn the **Main Disconnect Switch (Red Handle) "ON"**.

Close Blade Door, Clutch Door, and Chamber Covers.

Twist and Pull out the Emergency Stop Switch.

Open the Loading Chamber Cover Slightly, and close again. The Slicer is now operational.

Load the product to be cut and engage the product to the Product Pusher Gripper. Close the Loading Chamber Cover. Turn the Selector Switch to **"RUN"**. Press the **Green Start Button**.

After cutting is complete, open the Loading Chamber Cover, and while squeezing the hand lever of the Product Pusher Assembly move it to the right to the desired location.

Open the Receiving Chamber Cover and remove the cut product.

Close the Receiving Chamber Cover.

Clean the Product Gripper of any surplus.

Repeat the previous steps.

INTERLOCK SYSTEM

The Horizontal Slicer can only Start after the Blade Door, Clutch Door and Chamber Covers are closed, and the Emergency Stop is in the "out" position. Open one Cover briefly, and close again to initiate the electronics.

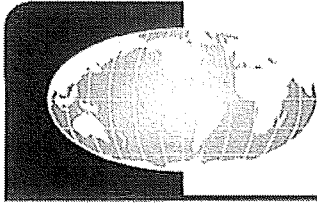
The Horizontal Slicer will not operate with any of the doors and/or Chamber Covers in the open position.

LUBRICATION

The Slicer Product Pusher Feed Screw will need to be lubricated periodically using the Haynes Spray U.S.P. Light Duty Sanitary Lubricating Spray. The Spray is Light, Tasteless, and colorless, odorless oil. NSF (National Sanitation Foundation) rated H1. U.S.D.A. rated H-1. All ingredients are FDA approved.

It is necessary to lubricate the Feed Screw with the Spray weekly or when excessive drag is felt.

1. Always turn "OFF" the Slicer, Disconnect the Power Cord (Unplug Power Cord from the Electrical Outlet).
2. Open the Load Chamber Cover. Between the top Cover and the Loading Chamber wall locate the Feed Screw between the Slot
3. Spray the Feed Screw Lightly, the entire length.
4. Pull the Product Pusher Handle Release together and move the Product Pusher back and forth several times.
5. Wipe off excess oil.



HAYNES[®] PRODUCT INFORMATION

THE WORLD'S LEADING MANUFACTURER OF PREMIUM FOOD GRADE LUBRICANTS

HAYNES SPRAY

U.S.P.* Light Duty Sanitary Oil

9 oz Aerosol Spray Cans

NSF rated H-1

*United States Pharmecuetical Standards



Haynes Spray is a light duty sanitary oil lubricant for all sanitary machine parts. This lubricant is authorized by the NSF (rated H1) for use in food processing plants for incidental food contact. All ingredients are FDA approved.

Haynes Spray, The U.S.P.* Light Duty Sanitary Spray can be used as an oil lubricant for food processing equipment. This sanitary oil can be used safely on drawer slides, doors, hinges, wheels, carts, or anywhere a light duty oil is needed in and around the food processing area. Haynes Spray contains no animal or vegetable fats and is absolutely neutral. It will not turn rancid, contaminate or taint food products. It is odorless, tasteless, colorless and non-toxic.

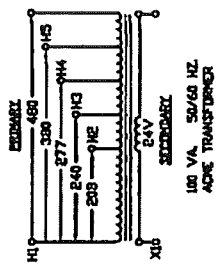
COMMON APPLICATIONS

- o SANITARY VALVE STEMS
- o HOMOGENIZER PISTONS & RINGS
- o POSITIVE PUMP PARTS
- o WHEELS (carts, chairs, equipment)
- o HINGES (doors, windows, equipment)
- o SLIDES
- o INTERNAL MACHINERY PARTS
- o ANTI-RUST FILM
- o FILLING MACHINES
- o GATES

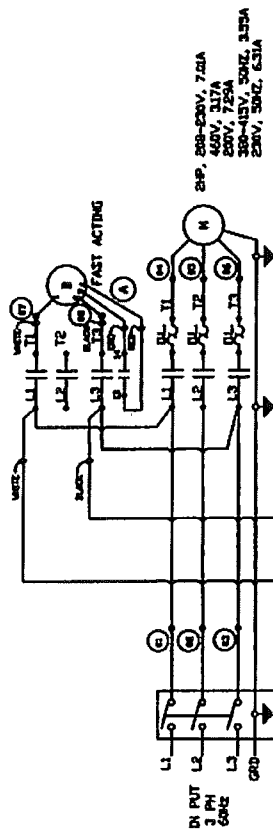
TECHNICAL DATA INFORMATION

| TEST | ASTM Method | Typical Test Results |
|-----------------------------------|-------------|----------------------|
| Consistency (Spec Grav @ 25C/25C) | D4052 | 0.87 |
| Viscosity (Saybolt @100°F) | D445 | 355 |
| Viscosity (Kin @40°C) | D445 | 68 |
| Flash Point (COP Flash) | D92 | 430°F |
| Pour Point | D97 | -5°F to -10°F |
| Color, Taste, & Odor | LATM092/145 | None |
| Operating Range, Min °F, Max °F | | N/A |

Haynes Manufacturing Company 24142 Detroit Road Westlake, Ohio 44145
 U.S.A. & Canada: 1-800-992-2166 Phone: 440-871-2188 Fax: 440-871-0855
<http://www.haynesmfg.com>



VIEW IN STAND BY, "RUN MODE"



PRODUCT PUSHER ASSEMBLY
IN THE FAR RIGHT POSITION

"RUN" MODE N/O

MOTOR CONTACTS, ITEM NO. P08512
24 VAC COIL, V72 HEL. AUX. CONTACTS

TERMINAL BLOCK LOCATIONS

BRAKE CONTACTS, ITEM NO. 26861-G0
AGG L-SOCKET, 24 VAC COIL

MODEL 109PCM ELECTRICAL SCHEMATIC

NOTES:
1. WIRING AND CONNECTIONS SHOULD BE MADE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND THE ILLINOIS STATE ELECTRICAL CODE.
2. ALL ELECTRICAL WORK SHOULD BE DONE BY A LICENSED ELECTRICIAN.
3. THIS SCHEMATIC IS FOR INFORMATION ONLY.
4. ALWAYS USE THE LATEST REVISIONS OF THIS SCHEMATIC.
5. CONTACT THE MANUFACTURER FOR MORE INFORMATION.

NOTE: AFTER INITIAL POWER APPLIED TO START-UP, THE PRODUCT COVER SAFETY COVER MUST BE LIFTED SLIGHTLY TO ALLOW THE MOTOR START AND/OR COILS.