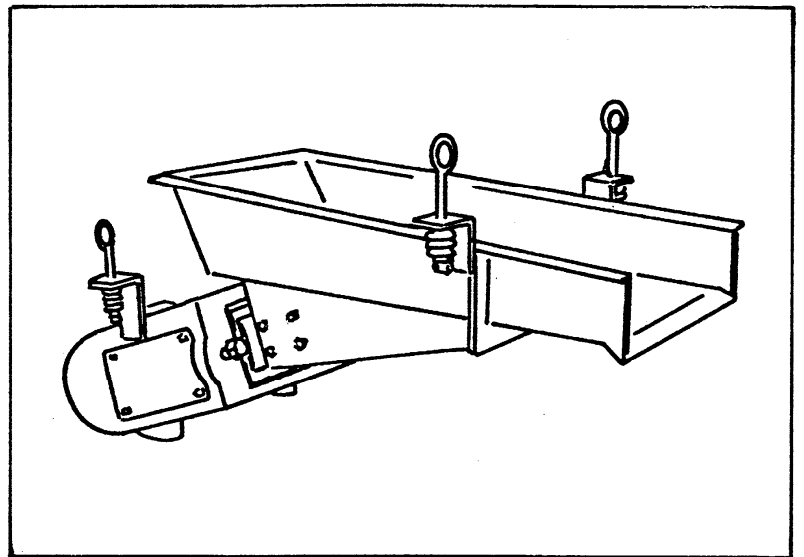


Service Instructions

Syntron®
Electromagnetic
Vibratory Feeder
Model: F-212-B



Service Instructions

Syntron® Electromagnetic Vibratory Feeder

Model: F-212-B

Spring Replacement
Parts List
Coil and/or Core Replacement
Operating Specifications



Safety Instructions: Product safety labels must remain highly visible on the equipment. Establish a regular schedule to check visibility. Should safety labels require replacement contact Syntron Material Handling for an additional supply free of charge.

SPRING REPLACEMENT GUIDE

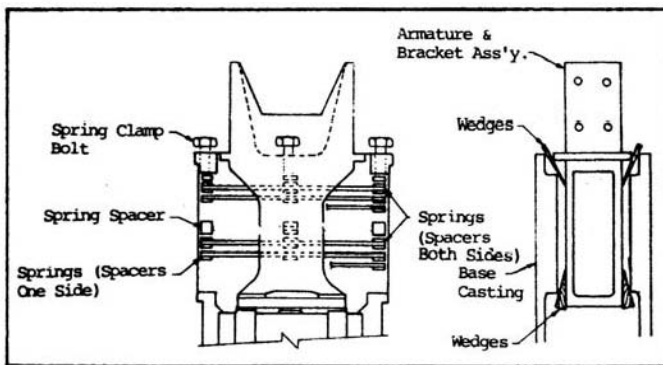


WARNING: Before performing any maintenance work the electrical supply must be disconnected at the safety disconnect switch.



CAUTION: If the trough must be removed to gain access to the spring clamping bolts, first provide a means of supporting the trough and drive unit. The trough can be removed by removing the mounting bolts (M) located on the side of the wing plates.

1. Remove side covers (HH), remove back cover (S). If the springs are replaced without separating the drive unit from the trough, slit the diaphragm (V) to gain access to install hardwood wedges.
2. Hold armature bracket in alignment with the base casting by driving hardwood wedges between the armature bracket (U) and the base casting (GG). This will insure correct alignment of the replacement springs on the spring alignment bar (CC).



3. Loosen the spring clamping bolts (W) enough to permit removal of the clamping blocks (Y & Z). If necessary, use penetrating oil.

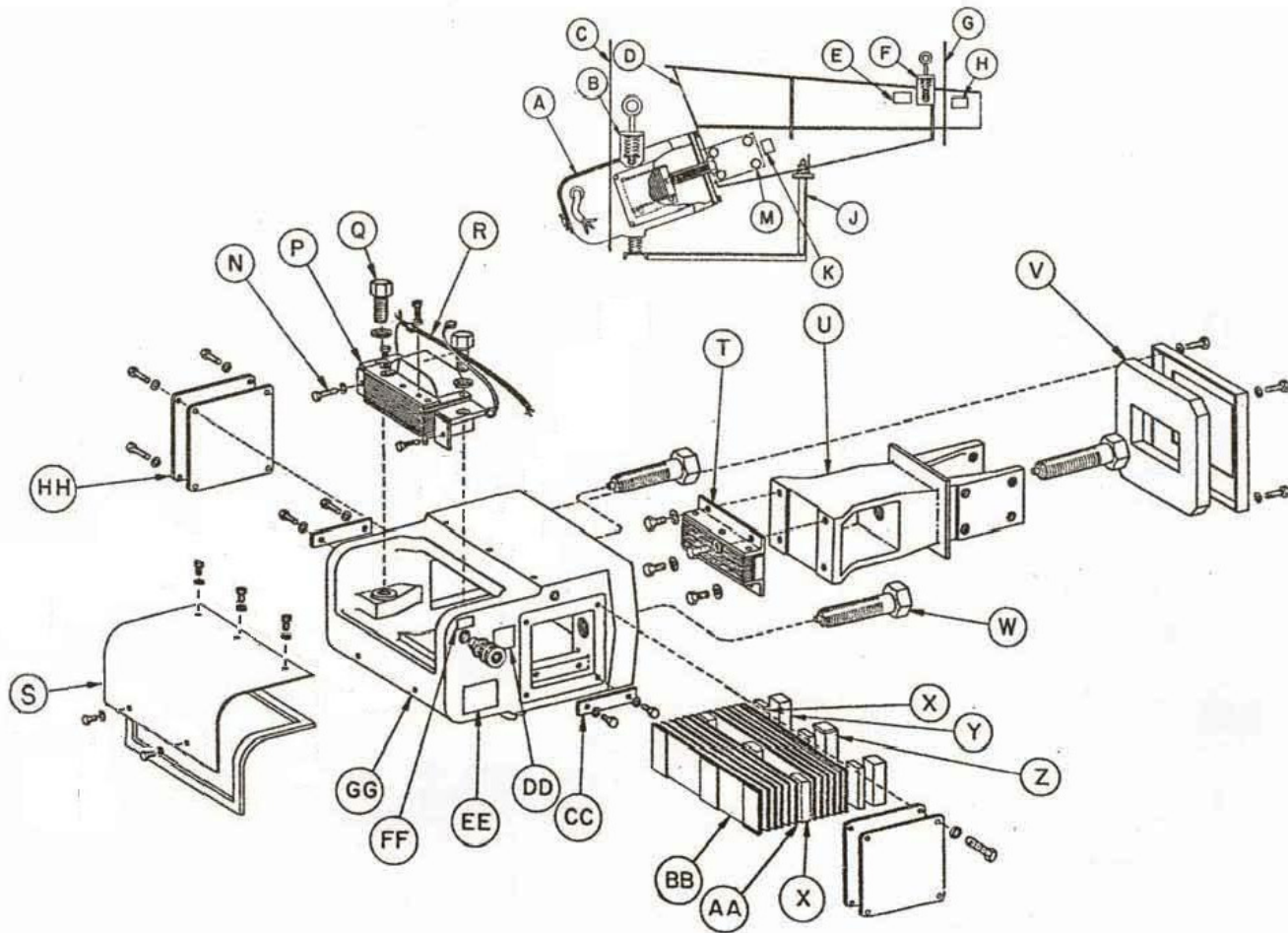
4. With the clamp blocks removed the leaf springs (AA & BB) can be removed and examined.

5. When installing springs, the spring with spacers on BOTH SIDES must be placed in the spring cavity last, the other springs will have a spacer on ONLY ONE SIDE. Insert these springs so the spacer side will contact the plain side of the previously placed spring. If spring spacers are used, replace them in their original position, then install the remaining springs, replacing the spring with spacers on both sides last.

6. With all springs installed and resting on the alignment bars (CC) check alignment of armature bracket (U). The armature bracket should not be twisted within the base casting. The core and armature "pole faces" should be parallel to each other.
7. Replace the center clamp block (Z) and torque center spring clamping bolt (W). Refer To torque specifications on page 2.
8. Replace the end clamp blocks (Y) and tighten the end clamp bolts enough to hold the spring stack in position.
9. Torque end spring clamping bolts (W) alternately to equalize the pressure across the springs.
10. Remove wooden wedges and replace trough, if removed.
11. Adjust the air gap to .062" See the "Air Gap" section of Service Manual SM0565 for procedure. Replace covers (S & HH).
12. Connect the power supply. After the unit has been operating for several hours, check clamping bolts for tightness.



CAUTION: Never oil the spring assembly!



PARTS LIST

ITEM	DESCRIPTION	QTY	PART NO.
A	Feeder Drive Unit 115/60[B], 230/60[C], 460/60[D], 230/50[G]	1	D-159109-[]
B	Rear Suspension Assembly	2	B-68479
C	Rear Safety cable	1	---
D	TROUGH	1	---
E	* Caution Label	1	A-102668
F	Front Suspension Assembly	2	A-72699
G	Front Safety Cable	1	---
H	* Safety Label (N.S. & F.S.)	2	A-125255
J	Base Mounting Assembly	1	---
K	*Stroke Gauge	1	A-212042
M	Cap Screw Hex Hd. (1/2"-13 x 3/4")	8	H0314801
	Lockwasher (1/2")	8	H0113601
N	Set Screw, Sq. Hd, Cut Pt. (5/16"-18 x 1")	2	H0406200
	Hex Jam Nut (5/16"-18)	2	H0102404
P	Magnet & Cable Assembly (115V/60Cy)		B-129664-A
	Magnet & Cable Assembly (230V/60Cy)		B-129664-C

	Magnet & Cable Assembly (460V/60Cy)		B-129664-E
	Magnet & Cable Assembly (550V/60Cy)		B-129664-G
	Magnet & Cable Assembly (575V/60Cy)		B-129664-H
	Magnet & Cable Assembly (115V/50Cy)		B-129664-B
	Magnet & Cable Assembly (230V/50Cy)		B-129664-D
	Magnet & Cable Assembly (460V/50Cy)		B-129664-F
Q	Cap Screw, Hex Hd., Gr. 5 (5/8"-18 x 1 1/4")	2	H0318501
	H.S. Washer	2	H0117562
R	Cable Assembly	1	6510-027-G
	Ground Jumper	1	B-192419-B
	Cable Clamp	1	0198X001
	Mach. Screw, Rd. Hd. (1/4"-20 x 1/2")	1	H0204901
	Lockwasher (1/4")	1	H0112801
	Cable Tie	1	0038X354
	Machine Screw, Rd. Hd., Br. (#10-32 x 1/2")	3	H0203402
	Lockwasher, Ext. tooth (#10)	3	H0112404
S	Back Cover Assembly	1	226255-B
	*Label, Disc. Electric	1	A-125694
	Cap Screw, Hex Hd. (1/4"-20 x 5/8")	5	H0301001
	Lockwasher (1/4")	5	H0112801
T	Armature Assembly	1	B-81610
	Cap Screw, Hex Hd. Gr. 2 (3/8" -16 x 3/4")	4	H0310001
	Lockwasher (3/8")	4	H0113201
U	Armature Bracket	1	C-82656-A
V	Diaphragm	1	A-81639
	Diaphragm Cover	1	A-81640
	Cap screw, Hex Hd. (1/4"-20 x 1 1/4")	4	H0302001
	Lockwasher (1/4")	4	H0112801

PARTS LIST (CONTINUED)

ITEM	DESCRIPTION	QTY	PART NO.
W	Spring clamp screw	3	A-67345
X	Spring Spacer Block (3/8" Thick)		A-74548-A
	Spring Spacer Block (3/4" Thick)	If	A-74548-B
	Spring Spacer Block (1 1/2" Thick)	Req'd	A-74548-C
Y	End Clamp Block (3/4")	2	A-67352-B
	End Clamp Block (1 1/2")	Only	A-67352-C
Z	Center Clamp Block (3/4")	1	A-74545-A
	Center Clamp Block (1 1/2")	Only	A-74545-B
AA	End Leaf Spring	1	A-88232
BB	Leaf Spring	14	A68930
CC	Spring Aligning Plate	2	A-68944
DD	*Label (N.S. & F.S.)	2	207354
EE	*Nameplate	1	A-62245
FF	*Label, Disc. Electric	1	A-125694
GG	Base Casting	1	D-81677
	Cable Grip	1	0102X010
HH	Side Cover	2	A-81624
	Side Cover Gasket	2	A-95693

Cap Screw, Hex Hd. (1/4"-20 x 3/4)	8	H0301201
Lockwasher (1/4")	8	H0112801

* Do not remove or paint over safety labels. Should safety labels require replacement, contact Syntron Material Handling, LLC., Saltillo, MS. 38866, for an additional supply, free of charge. When ordering parts, please furnish all the information on the nameplate.

TORQUE SPECIFICATIONS

<u>ITEM</u>	<u>TORQUE VALUE DRY</u>	<u>TORQUE VALUE LUBRICATED</u>
M	50 Ft-Lbs	----
Q	180 Ft-Lbs	130 Ft-Lbs
W	460 Ft-Lbs	350 Ft-Lbs
T	20 Ft-Lbs	15 Ft-Lbs

MAGNET REPLACEMENT



WARNING: Before performing any maintenance work, the electrical power supply must be disconnected at the safety disconnect switch.

1. Remove back cover (S).
2. Loosen hex nut on set screw (N) and remove set screws.
3. Disconnect cable assembly from the power supply, loosen cable grip entering base casting (GG) and pull cable through cable grip into the base casting.
4. Remove the clamping bolts (Q) from magnet assembly (P).
5. While carefully removing the magnet assembly, check for the presence of shims between the magnet and base casting. Any shims must be replaced in original locations to insure pole face alignment. If magnet is replaced, it may be necessary to shim for proper pole alignment.



CAUTION: The magnet assembly weighs approximately 15 pounds

6. Observe the location of washers used connect the ground wire.
7. Connect the green ground lead to replacement magnet at its original location. Be sure to locate the shakeproof lockwasher between the terminal and the core.
8. Replace magnet into the base casting using all original shims at the same locations. Replace magnet mounting bolts.
9. Slide the magnet forward until the core contacts the armature. Check from both top and bottom that core and armature faces are parallel. Eliminate any gap by using shims between magnet and mounting lugs on the base casting.
10. Insert cable through cable grip and reconnect cable leads to the power supply. Insure ground connection between core and base casting is securely connected.
11. Adjust air gap to .062" See "The Air Gap" section of Service Manual No. SM0565 for procedure.
12. Torque the magnet blts, refer to page 3.

- 13. Replace the cover (S).
- 14. Check trough stroke – maximum allowable is .045” to .050”.

OPERATING SPECIFICATIONS

Maximum trough weight: 50 Lbs.

Trough stroke range: .045” to .050”
(Max. Trough Weight)

Minimum Natural Frequency: 4000 VPM

Maximum Current Rating: (nameplate)
4.5 Amps (115V/50-60 Cy)
2.25 Amps (230V/50/60 Cy)
1.1 Amps (460V/50-60 Cy)
.92 Amps (550V/60 Cy)
.88 Amps (575V/60 Cy)

Important

Syntron Material Handling reserves the right to alter at any time, without notice and without liability or other obligations on its part, materials, equipment specifications, and models. Syntron Material Handling also reserves the right to discontinue the manufacture of models, parts, and components thereof.

Your satisfaction is very important to us. Please direct any comments, questions, or concerns to our Marketing Communications Department.

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