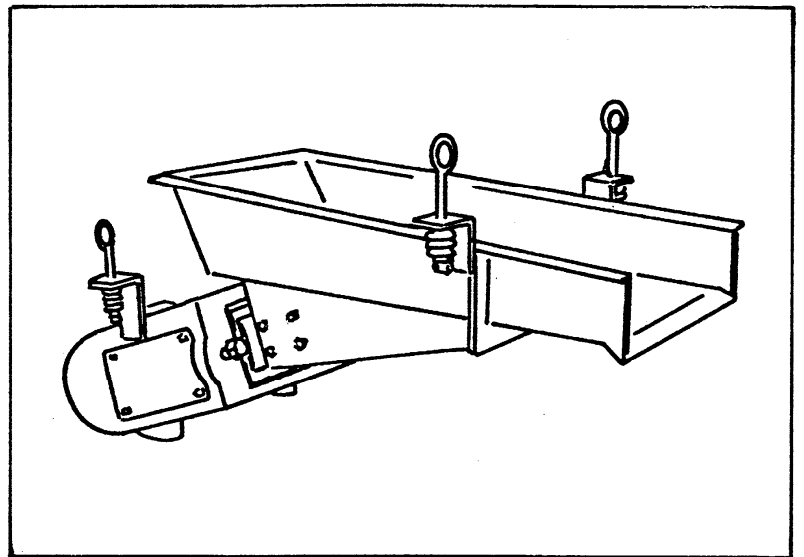


Service Instructions

Syntron®
Electromagnetic
Vibrating Feeder
Model: F-152-A



Syntron® Electromagnetic Vibrating Feeder Model: F-152-A

⚠ SAFETY INSTRUCTION: Product Safety Labels must remain highly visible on the equipment. Establish a regular schedule to check visibility. Should safety labels require replacement, contact SMH Corporation, Material Handling equipment Division for an additional supply free of charge.

SPRING REPLACEMENT GUIDE

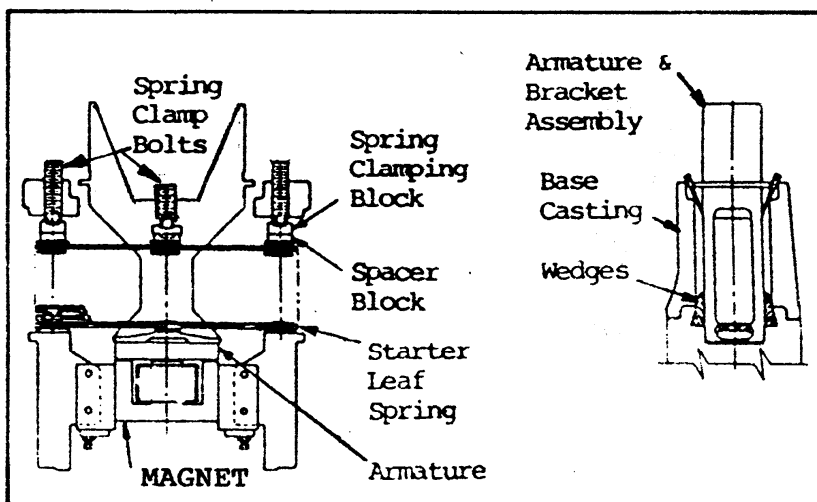


WARNING: Before performing any maintenance work the electrical supply must be disconnected.



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



3. Loosen the spring clamping bolts (V) enough to permit removal of the clamping blocks (X & Y). If necessary, use penetrating oil.
4. With the clamp blocks removed, the leaf springs (Z & AA) can be removed or examined.

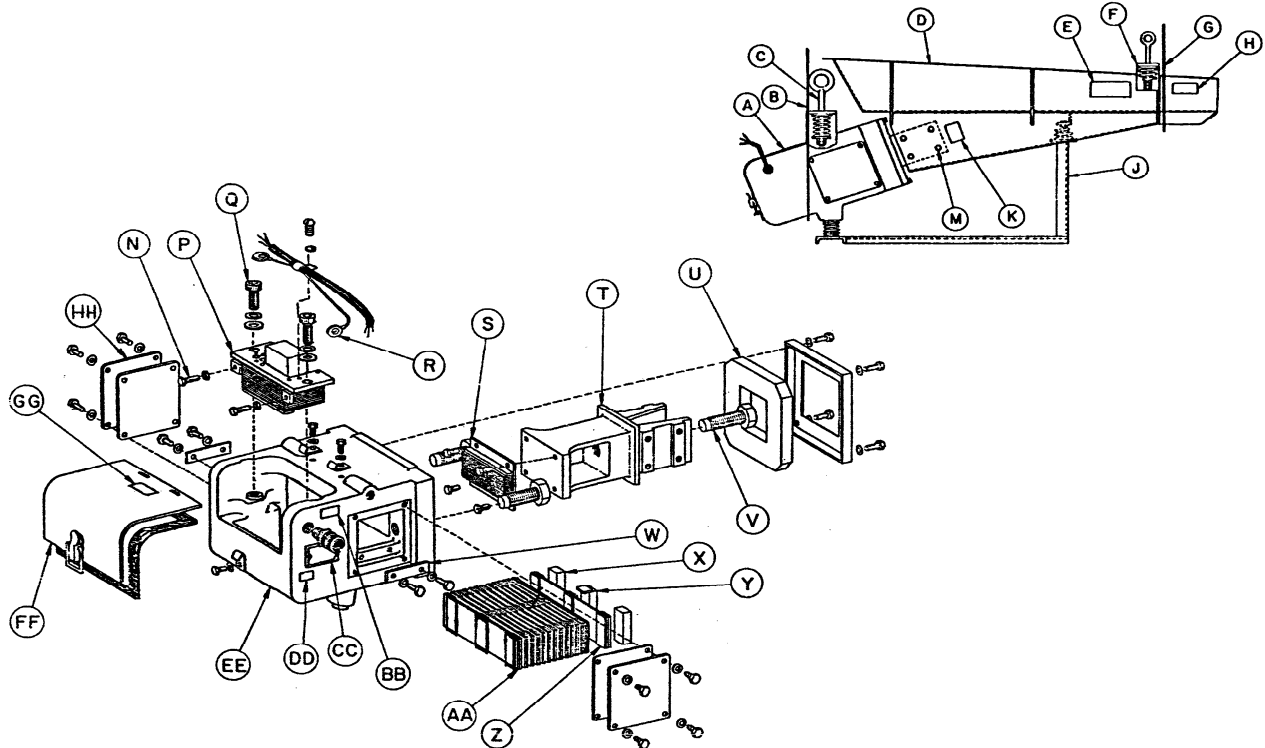
5. When installing springs, the spring with spacers on BOTH SIDES must be placed in the spring cavity last, the other springs will have a spacer on ONLY ONE SIDE . Insert these springs so the spacer side will contact the plain side on the previously placed spring. If spring spacers are used, replace them in their original position, then install the remaining springs, replacing the spring with spacers on both sides last.
6. With all the springs installed and resting on the alignment bars (W) check the alignment of armature bracket (T). 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 (Y) and torque center spring clamping bolt (V). Refer to torque specifications on page 2.
8. Replace the end clamp blocks (X) and tighten the end clamp bolts enough to hold the spring stack in position.
9. Torque end spring clamping bolts (V) alternately to equalize pressure across the springs.
10. Remove the wooden wedges and replace the trough, if removed.
11. Adjust the air gap to 0.62”. See the Air Gap section of the Service Manual SM0565 for procedure. Replace covers (FF & HH).
12. Connect the power supply. After the unit has been operating for several hours, check the clamping bolts for tightness.



CAUTION: Never oil the spring assembly!

TORQUE SPECIFICATIONS

ITEM	TORQUE VALUE DRY (FT-LBS)	TORQUE VALUE LUBRICATED (FT-LBS)
M	20	---
Q	75	55
S	8	6
V	230	175



PARTS LIST- VIBRATORY FEEDER MODEL: F-152-A

ITEM	DESCRIPTION	QTY.	PART NO.
A	Feeder Drive Unit	1	----
B	Rear Suspension Assembly	2	----
C	Rear Safety Cable Assembly	1	----
D	Trough	1	----
E	*Caution Label	1	A-102668
F	Front Suspension Assembly	2	----
G	Front Safety cable Assembly	1	----
H	*Safety Label (N.S. & F.S.)	2	A-125255
J	Base Mounting Assembly	1	----
K	*Stroke Gauge		A-212042
M	Cap Screw Hex Hd. (3/8"-16 x 3/4")	3	H0310001
	Lockwasher (3/8")	8	H0113201
N	Set Screw, Hdl. (5/16"-18 x 1")	2	H0406200
	Hex Nut (5/16"-18)	2	H0102401
P	Magnet & Cable Assembly (115V/60Cy)		B-126333-A
	Magnet & Cable Assembly (230V/60Cy)	1	B-126333-B
	Magnet & Cable Assembly (460V/60Cy)	Only	B-126333-C
	Magnet & Cable Assembly (115V/50Cy)		B-126333-J
	Magnet & Cable Assembly (230V/50Cy)		B-126333-D
	Magnet & Cable Assembly (460V/50Cy) & (575V/60Cy)		B-126333-K
	Mach. Screw, Rd. Hd., Br. (#10-32 x 1/4")	1	H0202902
	Lockwasher, Ext. Tooth (#10)	1	H0112404
	Cable Clamp (3/8")	1	0198X001
	Mach. Screw, Rd. Hd. (10-32 x 1/4")	1	H0202901
	Lockwasher, Ext. Tooth (#10)	1	H0112404

PARTS LISTS cont.

ITEM	DESCRIPTION	QTY.	PART NO.
Q	Cap Screw, Soc. Hd. (1/2"-13 x 1")	2	H0424200
	H.S. Washer	2	H0117362
R	Ground Wire Extension	1	B-192419-B
	Wire Tie	1	0038X321
	Mach, Screw, Rd. Hd., Br. (#10-32 x 3/4")	2	H0202902
	Lockwasher, Ext. Tooth (#10)	2	H0112404
S	Armature Assembly	1	A-70599
	Cap Screw, Soc. Hd., (1/4"-20 x 1/2")	4	H0416500
	Lockwasher (1/4")	4	H0112801
T	Armature Bracket	1	C-72542-A
U	Diaphragm	1	A-70751
	Diaphragm Cover	1	A-75346
	Cap Screw, Hex Hd. (1/4"-20 x 1")	4	H0301601
	Lockwasher (1/4")	4	H0112801
V	Spring Clamp Screw	3	A-202768-1
W	Spring Aligning Plate	2	A-72781
	Cap Screw, Hex Hd. (1/4"-20 x 1/2")	4	H0300801
	Lockwasher, Ext. Tooth (1/4")	4	H0114904
X	Leaf Spring End Clamp (3/4")	2	A-70579-A
	Leaf Spring End Clamp (1")	Only	A-70579-B
Y	Leaf spring Center Clamp (3/4")	1	A-77450-A
	Leaf Spring center Clamp (1")	Only	A-77450-B
Z	End Leaf Spring	1	A-88081
AA	Leaf Spring	13	A-75213
	Leaf Spring (Tuning)	As Req'd	A-91966
BB	* Label, Safety Slings (N.S.& F.S.)	2	A-207354
CC	*Nameplate	1	A-62245-4
	Drive Screws (#2 x 1/4")	2	H0430600
DD	*Label (Ground Connection)	2	A-125694
EE	Base Casting	1	C-72533-A
	Cable Grip	1	0102X010
FF	Back Cover Assembly	1	A-75338
	Latch Hook	3	A-75221
	Cap screw, Hex Hd. (1/4"-20 x 1/2")	3	H0300801
	Lockwasher (1/4")	3	H0112801
GG	*Label (Ground Connection)	1	A-125694
HH	Side Cover	2	A-70750
	Side Cover Gasket	2	A-95692
	Cap Screw Hex Hd. (1/4"-20 x 1/2")	8	H0300801
	Lockwasher (1/4")	8	H0112801

*Do not remove or paint over safety labels. Should safety labels require replacement, contact SMH Corporation, Material Handling Equipment Division, Homer City, PA. 15748 (724) 479-8011 for an addition supply free of charge.

When ordering parts, please furnish all information on the name plate.

OPERATING SPECIFICATIONS

Maximum trough weight:	25 Lbs.
Trough stroke range:	.045" to .050"
Minimum natural frequency;	3900 vpm (60 Cy)
Maximum current rating:	2.5 Amps (115V/60Cy)
(nameplate)	1.25 Amps (230V/60Cy)
	0.6 Amps (460V/60Cy)

MAGNET REPLACEMENT



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

1. Remove back cover (FF).
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 acsting (EE) and pull cable through cable grip into the base casting.
4. Remove the mounting bolts (Q) from the magnet assembly (P).
5. While carefully removing the magnet assembly, check for the presence of shims between 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 10 pounds.

6. Observe the location of washers used to connect the ground wire.
7. Connect the green ground lead to the 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, tighten cable grip and reconnect cable leads to the power supply. Insure ground connection between core and base casting is securely connected.
11. Adjust the air gap to .062". See "The Air Gap" section of Service Manual no. SM0565 for procedure.
12. Torque the magnet mounting bolts, refer to page 2.
13. Replace the cover (FF).

Check trough stroke – maximum allowable is .045" to .050

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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