

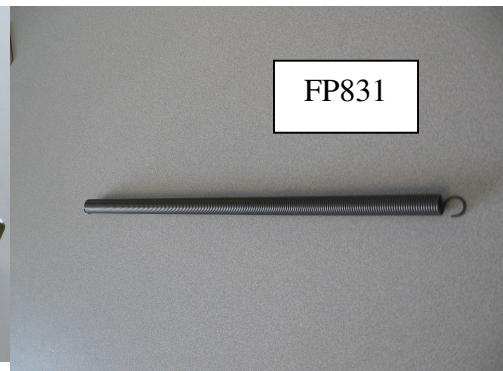
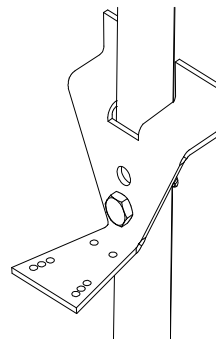
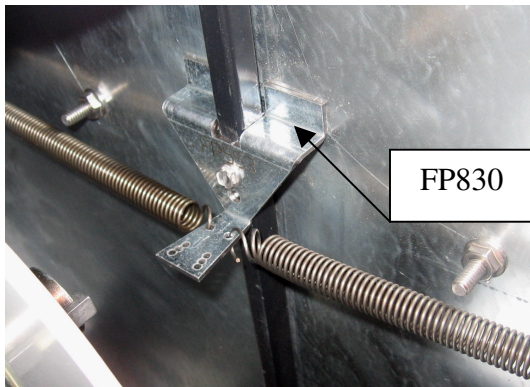
Assembly & Installation Manual IS10070

Read carefully the information provided. Retain manual for future reference.

SPRING BRACKET CONVERSION TO UPGRADE WITH 12" LONG SPRING (PART # HDG48SPRG)

INSTRUCTIONS

These are the pictures and information on what must be done to convert the fan to the new springs.



This would use the current rings (That they now have in the fan) and the new parts you will need are the FP830 Bracket, FP831 new 12 inch long springs, FP832 new longer cone straps so they provide the clearance for the springs, two more bolts MH8061, four more MH8055 Nuts.

The cone straps can be switched one at a time so you do not have to take the cone entirely off the fan. To mount the springs, the vanes can be drilled in place on the fan. The new hole position in the vanes are 19.56 from the edge of the vane or 16.0 from the existing hole that holds the spring.

To switch the cone straps to the new ones which are longer I would recommend:

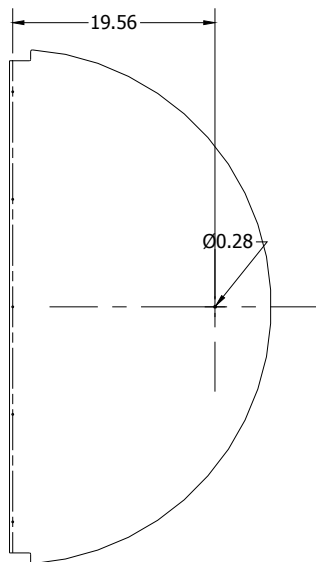
Disconnect the power to the fan.
Remove the inside guard screen

1. Loosen the cone straps from the bracket to the fan frame and remove the sheet metal screws, keep the bolt and nuts in engagement.
2. Pull the whole cone away from the fan frame a slight distance.
3. On one of the top cone straps remove one bolt from the fan frame. Only one cone strap from the fan frame first, and then remove the nut from the cone/ring, remove the old strap.
4. Install the new cone strap on the cone/ring joint just snug with this nut.
5. Swivel the cone strap into place and install the bolt and nut on the fan frame joint.
6. To get this in place you will need to move the cone out some, but be careful not to move any more than needed so you do not take the cone off the orifice.
7. Snug these joints slightly for now, later they can be taken to full torque.
8. Repeat steps 3 to 7 for the other side top cone strap, then the lower cone straps.
9. After all the new cone straps are in place, install the sheet metal screws into the fan frame to strap joint and drive the nuts torque to full torque on the joints of the fan to frame and cone strap to the cone/ring.

To install the new spring bracket after the above steps:

1. Loosen the blade from the shaft and slide the blade away from the ring to provide clearance on the spring bracket so you can remove the screw.
2. Remove the current springs from the damper vane joints by removing the nuts.
3. Remove the current springs from the bracket.
4. Remove the screw from the bracket.
5. Install the new bracket FP830 and the screw.

To drill the damper vane for the new position for the bolt:



1. Draw a level line from the existing damper vane spring attachment holes out to the edge of the damper vane.
2. Measure from the existing spring attachment hole out 16 inches (Near the cone edge) and mark the centerline for the new hole position. The new hole is about 19.56 from the edge of the vane.
3. Center punch a hole with an awl or center punch. (Can bolt on a old cone strap on the prior bolt in the vane to act as a handle to hold the vane near you while you center punch and drill)
4. Drill a small hole about 1/8 inch diameter in this position.
5. Drill out this hole to the 9/32 inch diameter (repeat for other vane)

To install the bolt/nut into the vane, attach the spring.

1. Enter the bolt in the same way as prior bolt, install the nut
2. Hook the one end of the spring into the bracket, then pull out the spring and attach the spring to the bolt, install the nut.
3. Repeat for the other side.

To make final changes

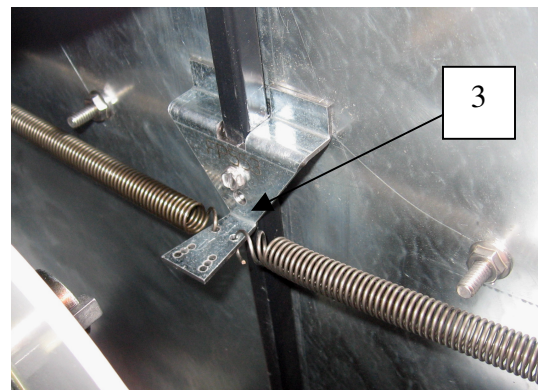
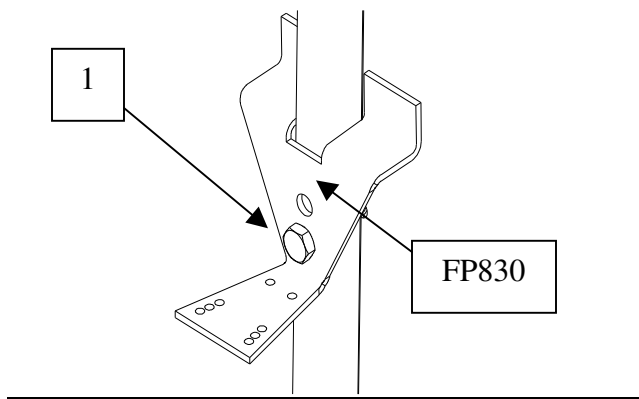
1. Move the blade back into place to provide clearance of at least 9/32 clearance between the end of the motor and all three blades and tighten the set screw on the blade to full torque.
2. Install the inner guard screen, and connect the power.
3. Test the fan for the correct action of the vanes and blade clearance. If correct there should be no repeating tapping sounds when the fan is in start up, in run or coasting to a stop. If there are these sounds, check the blade again on motor to blade clearance and blade to spring clearance and adjust as needed.

Cone and Butterfly Damper Assembly

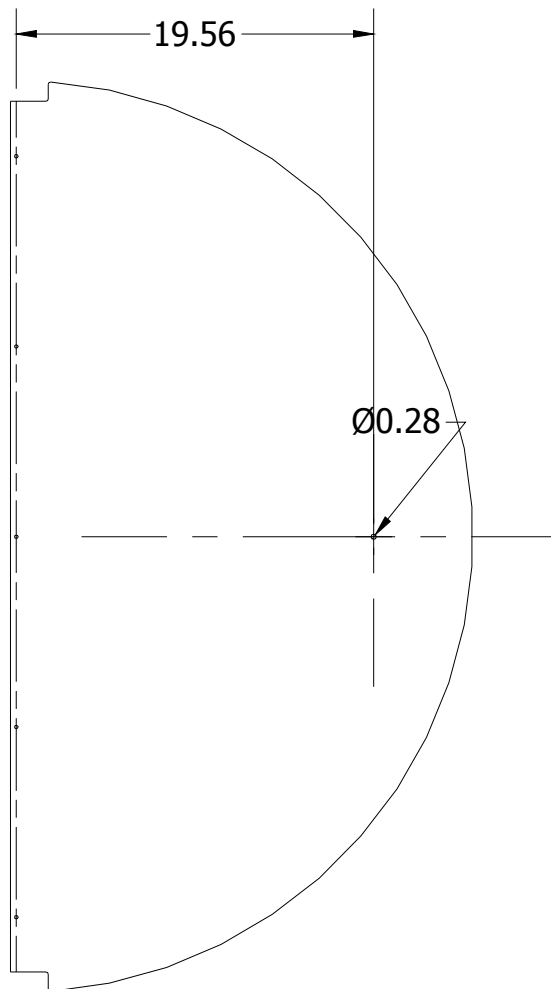
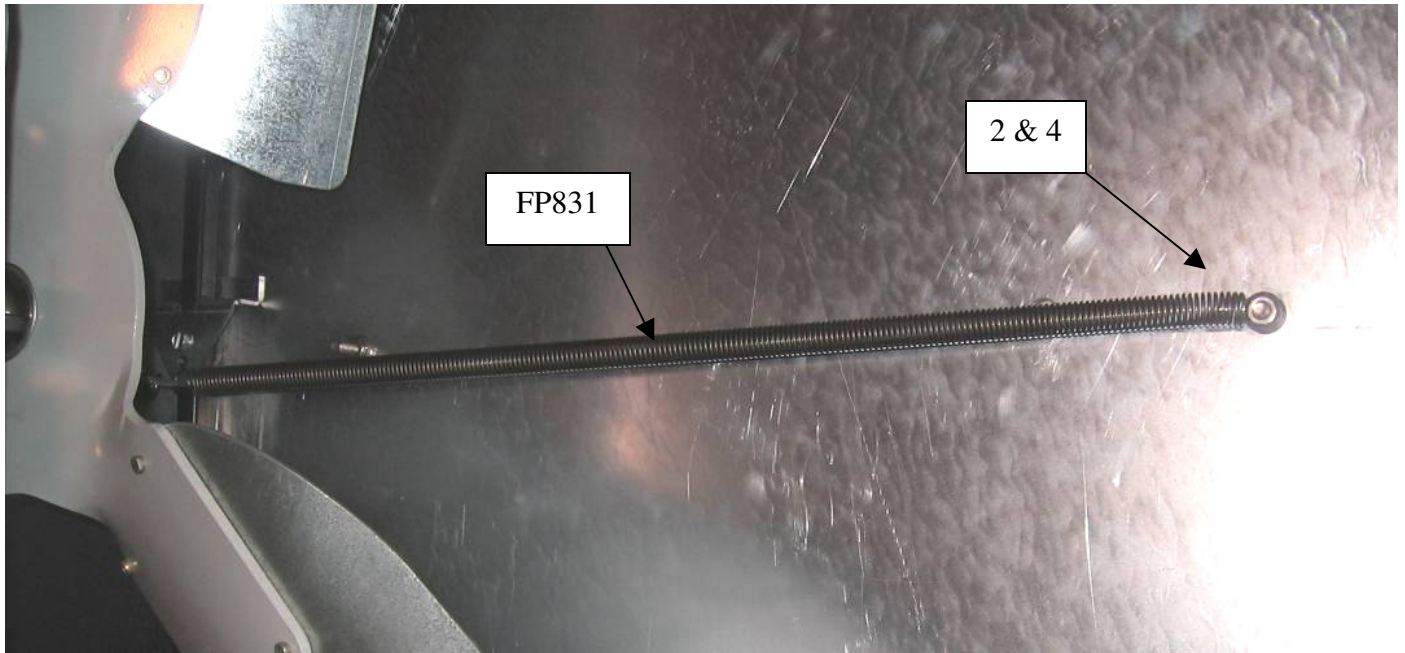
	ITEM	PART #	QTY	DESCRIPTION
	1	MH8200	10	SCREW, #10-32 X 1/2 HEX WSH THD CUTTING
	2	FP831	2	SPRING BUTTERFLY DAMPER 12" X 1/2 X .055
	3	MH8061	32	BOLT, 1/4-20 X 3/4 FLG HD S.S.
	4	MH8055	34	NUT, 1/4-20 FLG HD S.S.
	5	MH90168	4	BOLT, HEX HEAD, 1/4-20 X 1 S.S.
	6	MH8206	12	SCREW, #10-32 X 2 PAN HD PHILIPS SELF TAP
	7	FP507	12	CLIP, GUARD SCREEN 48" STRAIGHT WALL FAN
	8	FP832	4	STRAP, CONE 48" DAMPER FAN
	9	FP824	1	SPRING, DAMPER STOP FULL LOOP
	10	FP830	1	BRACKET BUTTERFLY DAMPER SPRING
	11	FP827	2	SEAL HINGE AREA GALV
	12	FP822	1	WIRE DAMPER STOP 2 EYE

Butterfly Damper Assembly

1. Attach the spring bracket (FP830) to the center support of the butterfly ring with one #10-32 X ½ screw (MH8200). Place screw in bottom hole using a hand socket. **Do not over tighten – this will cause hole to strip.**
2. Insert a ¼-20 X ¾ hex head bolt (MH8061) into each vane panel (FP470). Ensure bolt heads are on the opposite side of the vane panel from the spring bracket. Fasten each with a ¼-20 nut (MH8055) as shown below. These will be used to attach extension springs.



3. Attach extension springs (FP831) to the spring bracket (FP830) in the hole **closest** to the vane panels.
4. Attach the extension springs to the bolts on the vane panels. Fasten each down with a ¼-20 nut (MH8055)
 - a. If more tension is required from the extension springs to hold the vane panels closed, move the springs out into the next set of holes. **Do not use the two sets of holes farthest from the vane panels – there could possibly be blade interference.** If still more tension is needed, reposition the spring bracket by using the top hole.



SERVICE AND TECHNICAL ASSISTANCE

Your dealer or the Valco Service Department will be happy to answer all technical questions which will improve your use of the Galvanized fan series. Be prepared with the model number and necessary information before you place a call to your dealer or Valco. If your fan requires service when the warranty period has expired, please contact your dealer for assistance or return the unit to Valco for repair.

Inquiries



**VALCO COMPANIES
P.O. BOX 117
210 E. MAIN ST.
COLDWATER, OH. 45828
Ph. 800-998-2526**