



Circulation Fan

Models:

CCF20

3CF20

BSK24

BSK24HD

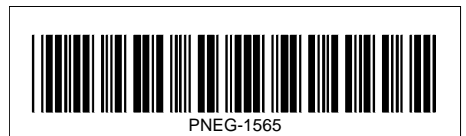
BSK36

Installation Manual

PNEG-1565

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All information, illustrations, photos and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

Contents

Chapter 1 Safety Information	4
Chapter 2 Safety Decals	5
Chapter 3 Installation	6
Fan Hanger Installation	6
Fan Installation Options	7
Chapter 4 Parts List	9
20" Circulation Fan (CCF20) Parts	10
20" Circulation Fan (3CF20) Parts	11
24" Circulation Fan (BSK24) Parts	12
24" HD Circulation Fan (BSK24HD) Parts	13
36" Circulation Fan (BSK36) Parts	14
Chapter 5 Warranty	15

1. Safety Information



ELECTRICAL SAFETY

An adequate and safe power supply to the Circulation Fan is essential for safety. A competent and qualified electrician must undertake all electrical wiring. All wiring is to be installed according to the National Standards and Regulations relevant to your Country and Region. Remember, electrical safety is your responsibility.



CORRECT USE OF YOUR CIRCULATION FAN

Only genuine Cumberland parts are to be used in installation and use of the Circulation Fan. Use of other non-genuine parts is a misuse of the system and may lead to dangerous situations imperilling the safety and health of you and others.

This product is intended for the use in ventilation of poultry buildings only. Any other use is considered a misuse of the product. This fan is not designed for use in atmospheres where there is a risk of explosion. Such environments may include enclosed areas of high dust concentrations, gas vapors and fumes. Use of the Circulation Fan in such an environments is prohibited. If in doubt, contact Cumberland or your dealer.



SAFETY GUARDS

The Circulation Fan contains many moving and electrical parts, which will cause serious injury or death if touched. Guards are placed on the unit for your protection. Operating the unit at any time with guards removed or incorrectly fitted is a serious misuse of the fan and endangers safety.





SAFETY IN HANDLING THE CIRCULATION FAN

Components of the Circulation Fan require manual handling and lifting during assembly and installation. To prevent injury, seek assistance where necessary.

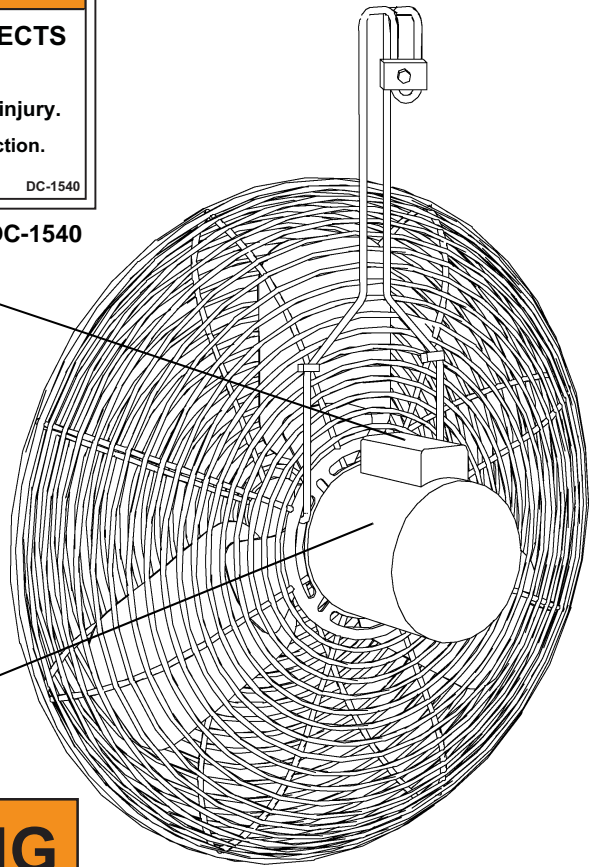


CORRECT INSTALLATION OF 3CF20 CIRCULATION FAN MODEL

Rotating blade must be installed a "MINIMUM" of 7' above floor or working level on fan model 3CF20. The fan model CCF20 can be installed at any height above floor or working level.

<p>! DANGER</p>  <p>HIGH VOLTAGE</p> <ul style="list-style-type: none"> • Will cause serious injury or death. • Lockout power before servicing. <p><small>The GSI Group 217-226-4421</small></p>	<p>! WARNING</p> <p>STAY CLEAR OF ROTATING BLADE</p> <ul style="list-style-type: none"> • Blade may start automatically. • May cause serious injury. • Disconnect and lockout power sources before servicing.
<p>! WARNING</p> <p>FLYING OBJECTS HAZARD</p> <ul style="list-style-type: none"> • Danger of eye injury. • Wear eye protection. <p><small>DC-1540</small></p>	

DC-1540



	<p>! WARNING</p> <p>ROTATING BLADE</p> <p>Stay clear.</p> <p>Rotating blade will cut and crush, causing serious injury.</p>
<p>INSTALLATION INSTRUCTIONS</p>	
<p>Rotating blade must be installed a minimum of 7 feet (2.13 m) above floor or working level.</p> <p><small>GSI Group 217-226-4421</small> <small>DC-2187</small></p>	

DC-2187

3. Installation

NOTE: It does not apply to 24" and 36" size Circulation Fans.



Disconnect all electrical power sources before installing the fan mounting bracket and fan.

NOTE: Locate packing slip and make sure that all listed parts are enclosed. If parts are missing contact the dealer immediately. Read and understand all instructions in this manual before installing the fan mounting bracket and fan.

Fan Hanger Installation

1. Slide both hooks (D) between inner ring (C) of guard and motor. (See Figure 3A.)
2. Using two (2) plastic zip ties (E), attach hanger to grill guard. Wrap zip ties around main support rod of grill, grill ring and hanger. Trim zip ties when attached. (See Figure 3A.)

NOTE: When fan is hung in place, capacitor cover must be oriented on top of motor (B).
(See Figure 3A.)

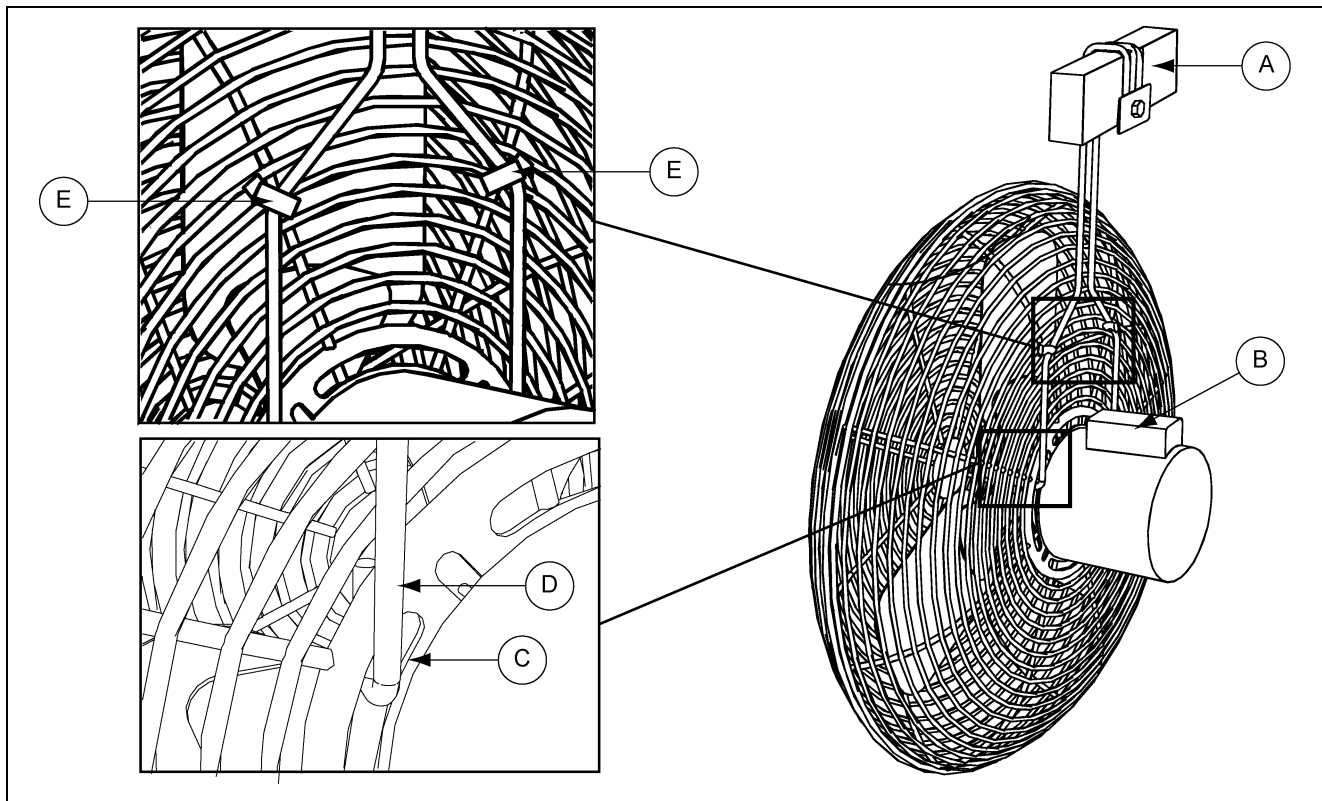


Figure 3A

Ref #	Description
A	Overtop Rafter
B	Capacitor Cover on Top of Motor
C	Inner Ring
D	Hanger Hook
E	Zip Ties Attached

Fan Installation Options

NOTE: *It does not apply to 24" and 36" size Circulation Fans.*

1. *Overtop rafter* - Install fan, placing fan hanger overtop of rafter. Place fan mount washer on front side of loop end. Install lag screw/bolt (not included). *(See Figure 3A on Page 6.)*

Recommended Lag Screw/Bolt

Wood application (lag screw) - Use a minimum diameter of 1/4" with a minimum thread length into the wood of 2".

Steel application (bolt) - With varying truss designs use a minimum diameter of 1/4" with appropriate washer and lock nut.

2. *Ceiling/underside of rafter* - Install fan, placing top of fan hanger flush with bottom side ceiling/rafter. Place fan mount washer on the underneath side of the top end. Install lag screw/bolt (not included). *(See Figure 3B.)*

Recommended Lag Screw/Bolt

Wood application (lag screw) - Use a minimum diameter of 1/4" with a minimum thread length into the wood of 2".

Steel application (bolt) - With varying truss designs use a minimum diameter of 1/4" with appropriate washer and lock nut.

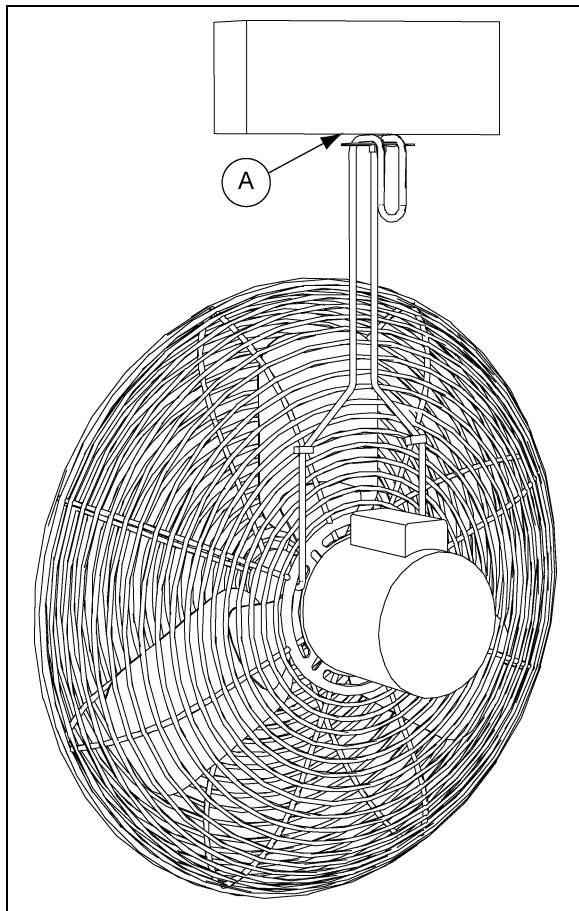


Figure 3B

Ref #	Description
A	Underside of Rafter/Ceiling

3. Installation

Fan Installation Options (Continued)

NOTE: *It does not apply to 24" and 36" size Circulation Fans.*

3. *Open house/angular rafter* - Recommended installation on angular rafter (C). **NOTE:** *Fan must be hung plum (VERTICAL).* Using a cut 2 x 4 approximately 4"-5" long screw 2 x 4 (B) into rafter where fan will be placed. **NOTE:** *4"-5" Flat side of 2 x 4 must be parallel to the ground floor.* Follow [Step 2 on Page 7](#) for placing fan on underside of rafter/2 x 4. (See [Figure 3C.](#))

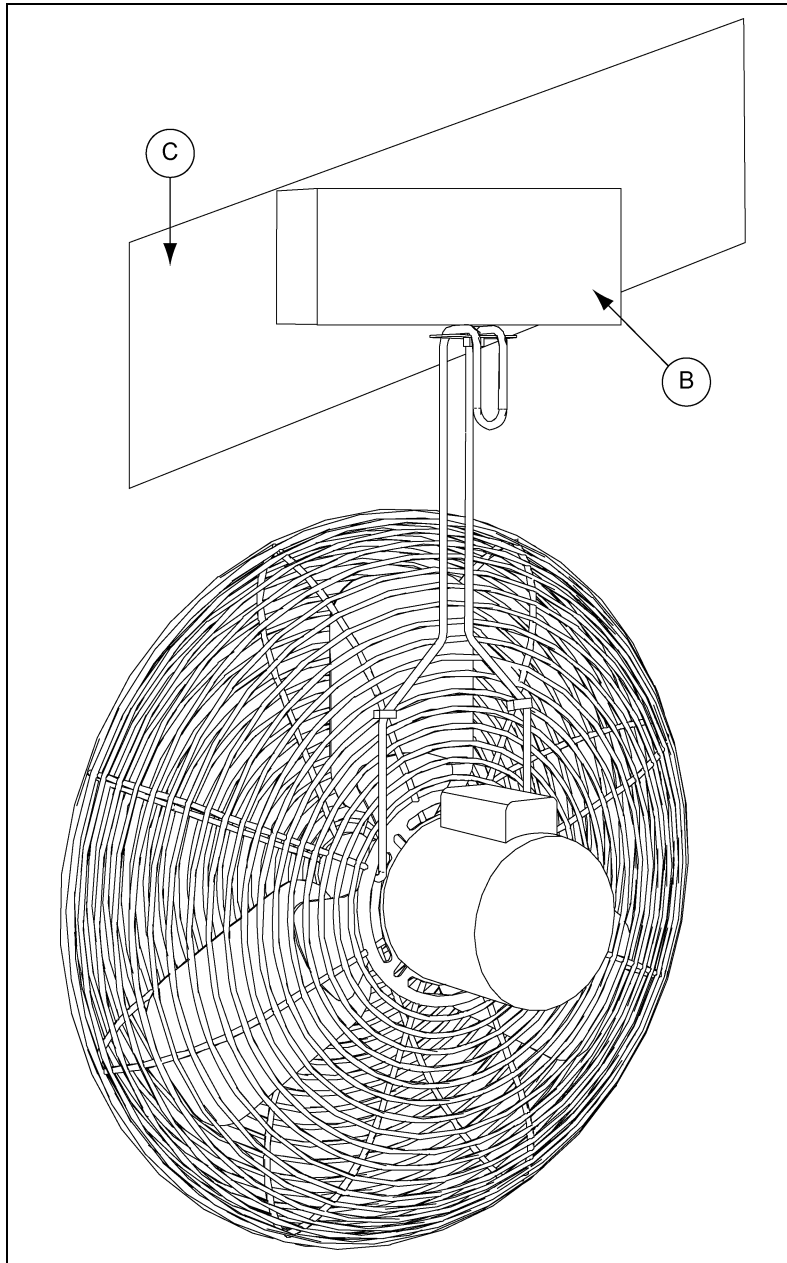


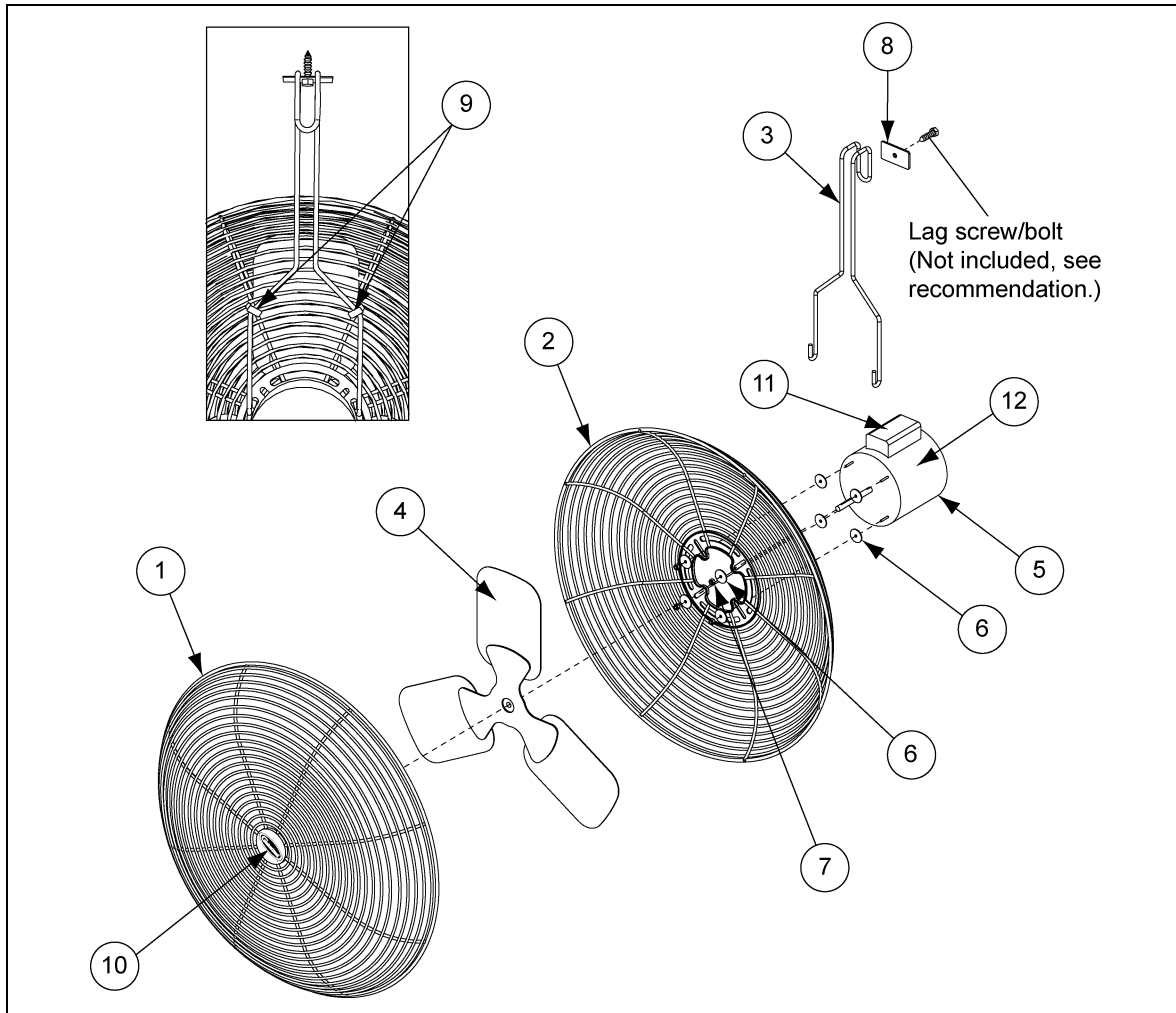
Figure 3C

Ref #	Description
B	4"-5" Level 2 x 4
C	Angled Rafter

1. 20" Circulation Fan (CCF20) Parts - [\(See Page 10.\)](#)
2. 20" Circulation Fan (3CF20) Parts - [\(See Page 11.\)](#)
3. 24" Circulation Fan (BSK24) Parts - [\(See Page 12.\)](#)
4. 24" HD Circulation Fan (BSK24HD) Parts - [\(See Page 13.\)](#)
5. 36" Circulation Fan (BSK36) Parts - [\(See Page 14.\)](#)

4. Parts List

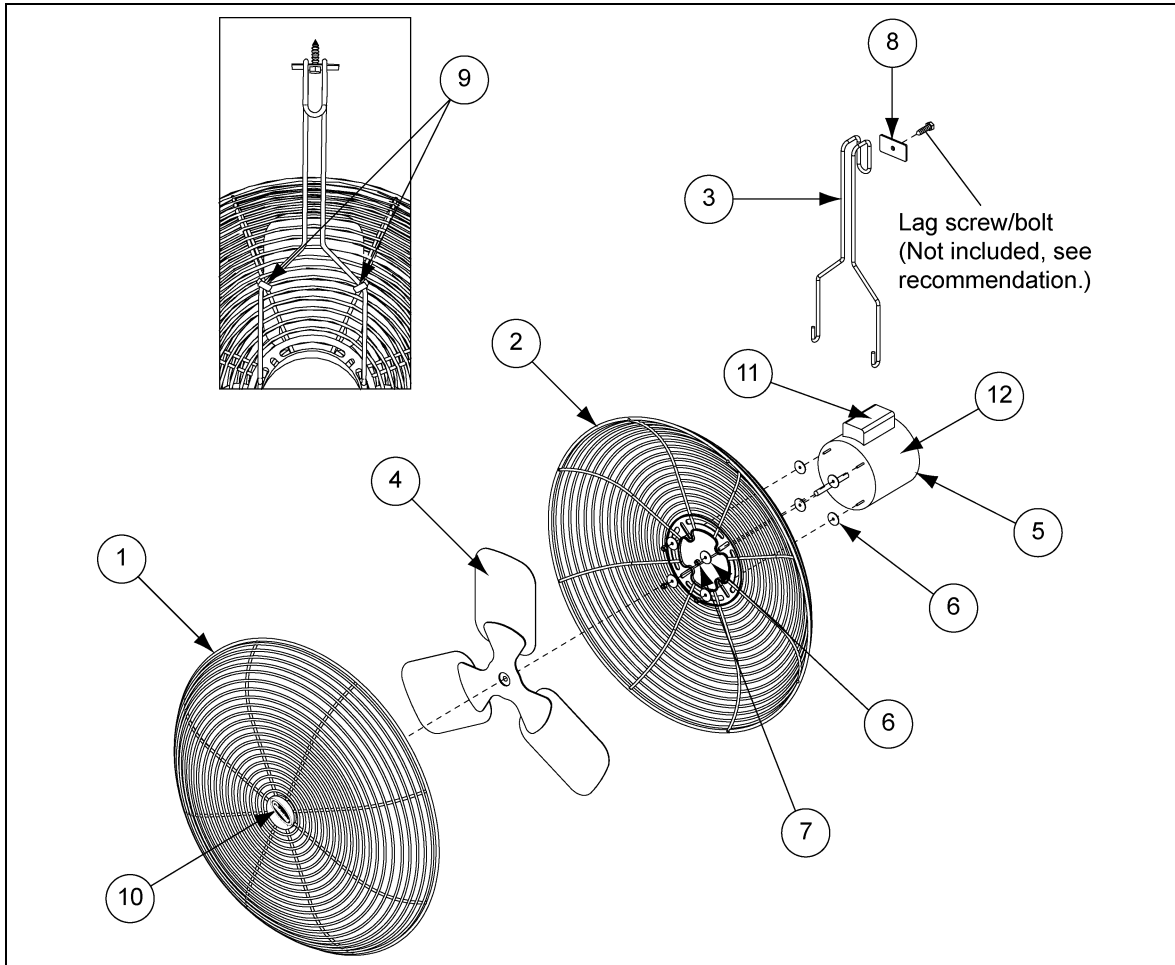
20" Circulation Fan (CCF20) Parts



20" Circulation Fan (CCF20) Parts List

Ref #	Part #	Description	Qty
1	11-0475	Grill, 20" Front White Painted (7' Plus Install)	1
2	11-0476	Grill, 20" Back White Painted (7' Plus Install)	1
3	11-0373	Hanger Circulation Fan 20"	1
4	13-0146R	Prop 20" Circulation Fan (2 Blade Prop)	1
5	15-0134	Motor, 0.10 HP 1725 RPM 60 Hz 1 PH	1
6	S-8723	Fender Washer 3/16" x 1" ZN Grade 2	8
7	S-7277	Nylock Nut #10-32 ZN Grade 2	4
8	S-9405	Washer - Fan Mount	1
9	S-9352	Wire Tie Blk 0.300" x 8.0"	2
10	DC-1897	Decal, 2" Diameter Cumberland Logo	1
11	DC-1540	Decal, Danger/Warning, Danger (DC-1224), Warning	1
12	DC-2187	Decal, 20" Fan Mounting Instructions	1
N/S	PNEG-1565	Circulation Fan Instruction Manual	1

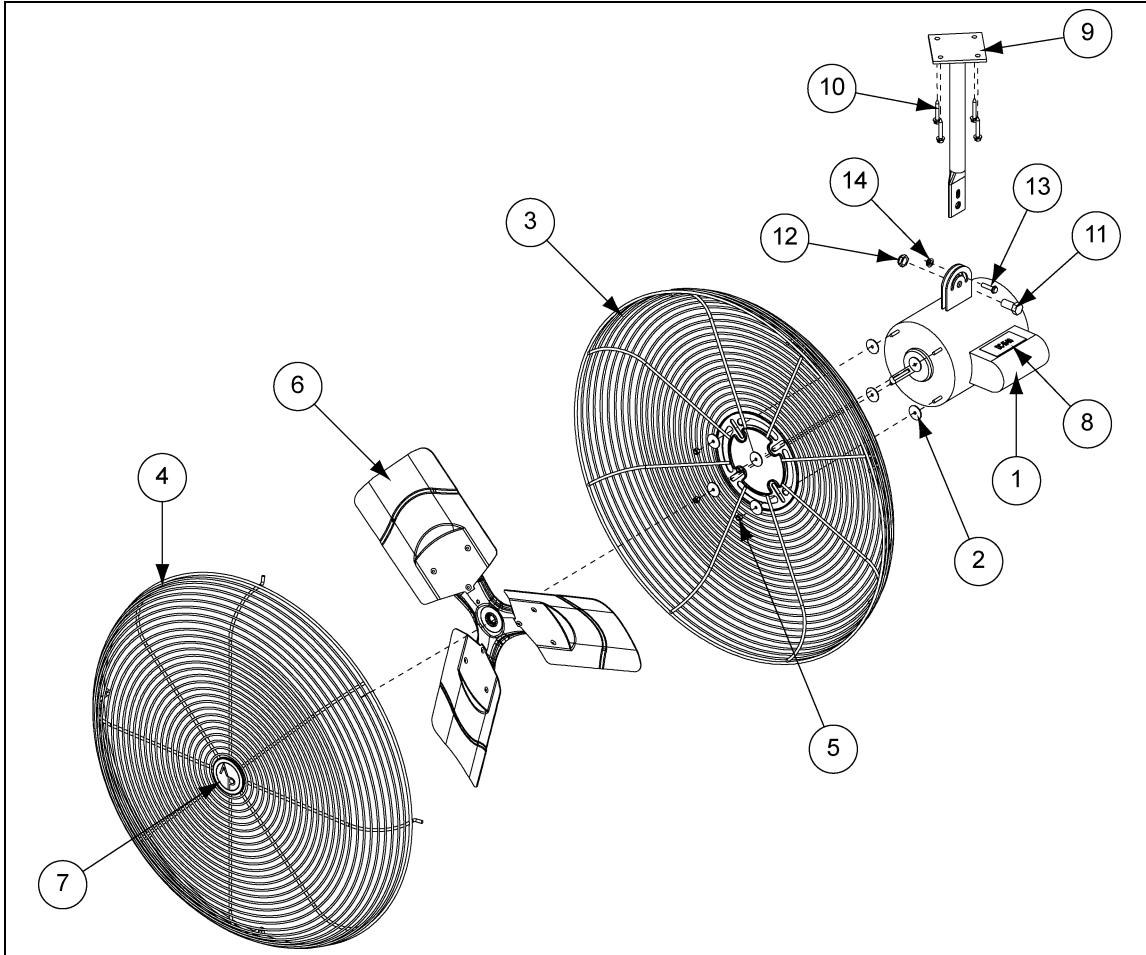
20" Circulation Fan (3CF20) Parts



20" Circulation Fan (3CF20) Parts List

Ref #	Part #	Description	Qty
1	11-0475	Grill, 20" Front White Painted (7' Plus Install)	1
2	11-0476	Grill, 20" Back White Painted (7' Plus Install)	1
3	11-0373	Hanger Circulation Fan 20"	1
4	13-0222	Prop 20" Circulation Fan (2 Blade Prop) (Above Figure Illustration Only.)	1
5	15-0211	Motor, 0.10 HP 1725/1435 RPM 60/50 Hz 1 PH	1
6	S-8723	Fender Washer 3/16" x 1" ZN Grade 2	8
7	S-2010	Nylock Nut #10-24 ZN Grade 2	4
8	S-9405	Washer - Fan Mount	1
9	S-9352	Wire Tie Blk 0.300" x 8.0"	2
10	DC-1897	Decal, 2" Diameter Cumberland Logo	1
11	DC-1540	Decal, Danger/Warning, Danger (DC-1224), Warning	1
12	DC-2187	Decal, 20" Fan Mounting Instructions	1
N/S	PNEG-1565	Circulation Fan Instruction Manual	1

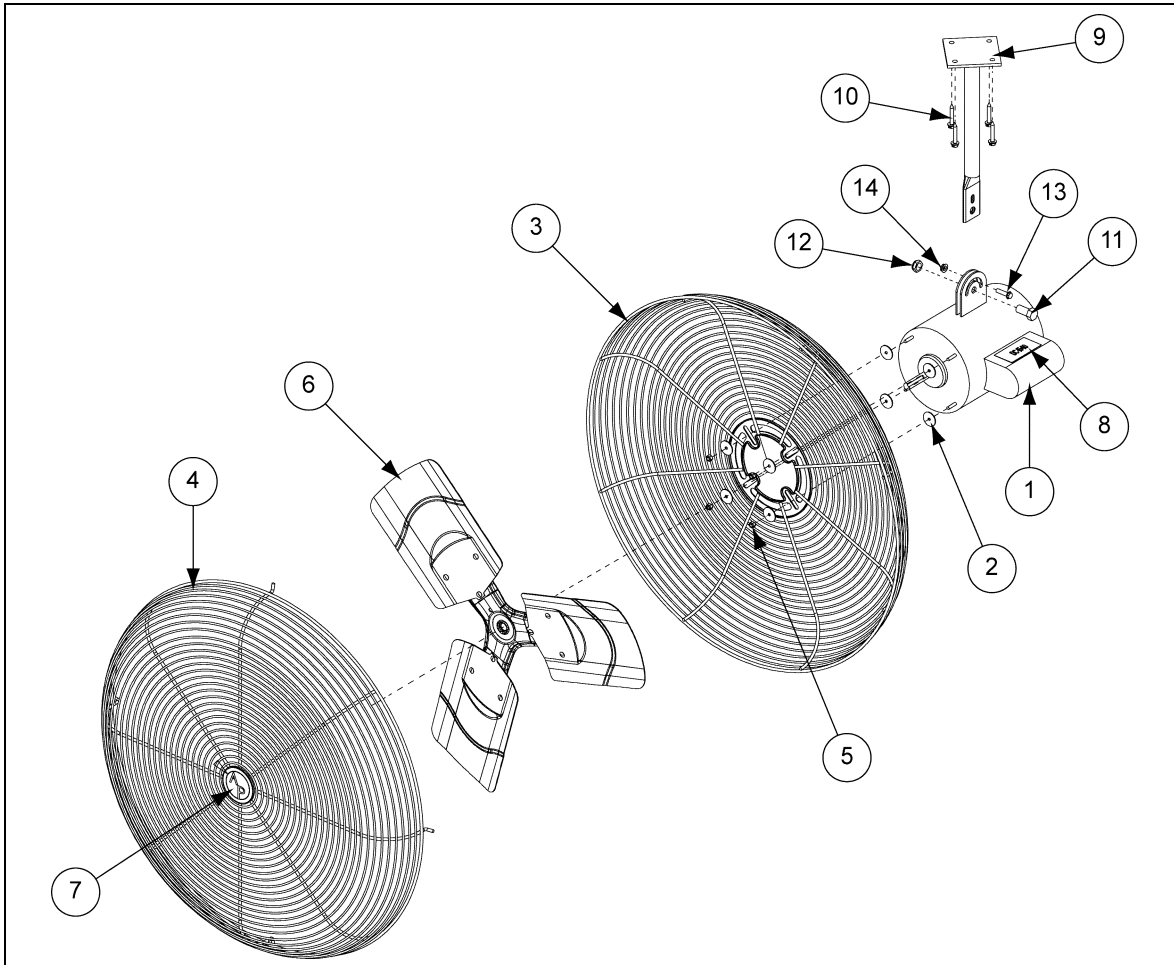
24" Circulation Fan (BSK24) Parts



24" Circulation Fan (BSK24) Parts List

Ref #	Part #	Description	Qty
1	15-0106	Motor, 0.3 HP 1100 RPM, 48 FR	1
2	S-8723	Fender Washer 3/16" x 1" ZN Grade 2	8
3	11-0254	Grill, Housing Back Basket 24"	1
4	11-0253	Grill, Housing Front Basket 24"	1
5	S-7277	Nylock Nut #10-32 ZN Grade 2	4
6	13-0101R	24" Propeller	1
7	DC-1107	Decal, 2-1/2" AP Logo	1
8	DC-1540	Decal, Danger/Warning, Danger (DC-1224), Warning	1
9	11-0187-GY	24" Basket Fan Motor Mount Grey	1
10	S-7502	Screw, SMSA 1/4" x 1-1/2" HWHS SS	4
11	S-7413	Bolt, HHCS 1/2"-13 x 1" SS	1
12	S-7417	Nylock Nut 1/2"-13 SS	1
13	S-8113	Flange Bolt 1/4"-20 x 1"	1
14	S-8114	Flange Nut 1/4"-20	1
N/S	10-0069	Basket Fan Hardware Kit	1
N/S	BX-BSK24	Box, 26" x 26" x 14-1/4"	1
N/S	BX-BSK24-1	Insert, for BX-BSK24	1

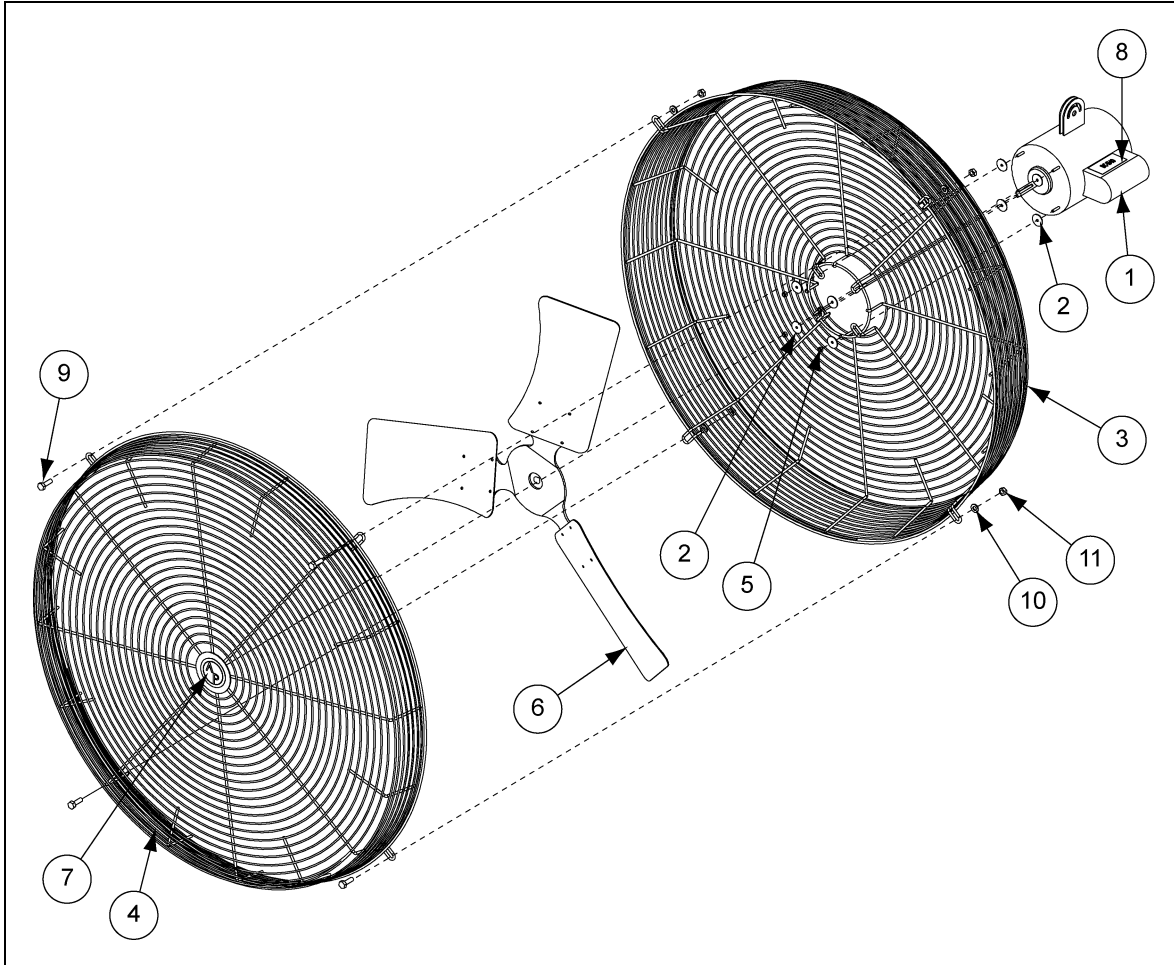
24" HD Circulation Fan (BSK24HD) Parts



24" HD Circulation Fan (BSK24HD) Parts List

Ref #	Part #	Description	Qty
1	15-0115	Motor, 0.3 HP 1700 RPM, 48 FR HD	1
2	S-8723	Fender Washer 3/16" x 1" ZN Grade 2	8
3	11-0254	Grill, Housing Back Basket 24" HD	1
4	11-0253	Grill, Housing Front Basket 24" HD	1
5	S-7277	Nylock Nut #10-32 ZN Grade 2	4
6	13-0116R	24" HD Propeller	1
7	DC-1107	Decal, 2-1/2" AP Logo	1
8	DC-1540	Decal, Danger/Warning, Danger (DC-1224), Warning	1
9	11-0187-GY	24" Basket Fan Motor Mount Grey	1
10	S-7502	Screw, SMSA 1/4" x 1-1/2" HWHS SS	4
11	S-7413	Bolt, HHCS 1/2"-13 x 1" SS	1
12	S-7417	Nylock Nut 1/2"-13 SS	1
13	S-8113	Flange Bolt 1/4"-20 x 1"	1
14	S-8114	Flange Nut 1/4"-20	1
N/S	10-0069	Basket Fan Hardware Kit	1
N/S	BX-BSK24	Box, 26" x 26" x 14-1/4"	1
N/S	BX-BSK24-1	Insert, for BX-BSK24	1

36" Circulation Fan (BSK36) Parts



36" Circulation Fan (BSK36) Parts List

Ref #	Part #	Description	Qty
1	15-0082Y	Motor, 0.5 HP 60 Hz, 1 PH, Yoke Mount	1
2	S-8723	Fender Washer 3/16" x 1" ZN Grade 2	8
3	11-0258-WH	Grill, Housing Back Basket 36"	1
4	11-0257-WH	Grill, Housing Front Basket 36"	1
5	S-7277	Nylock Nut #10-32 ZN Grade 2	4
6	13-0100R	36" Propeller Galvanized	1
7	DC-1107	Decal, 2-1/2" AP Logo	1
8	DC-1540	Decal, Danger/Warning, Danger (DC-1224), Warning	1
9	S-7447	Flange Bolt 5/16"-18 x 1" SS	4
10	S-7005	Flat Washer 5/16" SAE ZN Grade 2	4
11	S-8452	Flange Nut 5/16"-18 SS Waxed	4
N/S	10-0069	Basket Fan Hardware Kit	1
N/S	BX-332	Box, 16-1/4" x 38" x 38"	1
N/S	BX-418	Fan, Partition for BSK36	4

Limited Warranty - Protein Products

The GSI Group, LLC. ("GSI") warrants products which it manufactures, to be free of defects in materials and workmanship under normal usage and conditions for a period of 12 months from the date of purchase (or, if shipped by vessel, 14 months from the date of arrival at the port of discharge). If, in GSI's sole judgment, a product is found to have a defect in materials and/or workmanship, GSI will, at its own option and expense, repair or replace the product or refund the purchase price. This Limited Warranty is subject to extension and other terms as set forth below.

Warranty Enhancements:

The warranty period for the following products is enhanced as shown below and is in lieu of (and not in addition to) the above stated warranty period.

	Product	Warranty Period	
AP® Fans	Performer Series Direct Drive Fan Motor	3 Years	* Warranty prorated from material list price: 0 to 3 years - no material cost to end user 3 to 5 years - end user pays 25% 5 to 7 years - end user pays 50% 7 to 10 years - end user pays 75%
AP® and Cumberland®	Flex-Flo/Pan Feeding System Motors	2 Years	
Electronic Controls	All Protein controls manufactured by GSI	24 Months from date code on part	
Cumberland® Feeding and Watering Systems	Feeder System Pan Assemblies	5 Years, Prorated **	** Warranty prorated from material list price: 0 to 3 years - no material cost to end user 3 to 5 years - end user pays 75%
	Feed Tubes (1.75" and 2.00")	10 Years, Prorated *	
	Centerless Augers	10 Years, Prorated *	
	Watering Nipples	10 Years, Prorated *	

Conditions and Limitations:

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION SET FORTH HEREIN; SPECIFICALLY, GSI DISCLAIMS ANY AND ALL OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH: (I) ANY PRODUCT MANUFACTURED OR SOLD BY GSI, OR (II) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF GSI REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCTS.

The sole and exclusive remedy for any claimant is set forth in this Limited Warranty and shall not exceed the amount paid for the product purchased. This Warranty only covers the value of the warranted parts and equipment, and does not cover labor charges for removing or installing defective parts, shipping charges with respect to such parts, any applicable sales or other taxes, or any other charges or expenses not specified in this Warranty. GSI shall not be liable for any other direct, indirect, incidental or consequential damages, including, without limitation, loss of anticipated profits or benefits. Expenses incurred by or on behalf of a claimant without prior written authorization from the GSI warranty department shall not be reimbursed. This warranty is not transferable and applies only to the original end user. GSI shall have no obligation or responsibility for any representations or warranties made by or on behalf of any dealer, agent or distributor. Prior to installation, the end user bears all responsibility to comply with federal, state and local codes which apply to the location and installation of the products.

This Limited Warranty extends solely to products sold by GSI and does not cover any parts, components or materials used in conjunction with the product, that are not sold by GSI. GSI assumes no responsibility for claims resulting from construction defects, unauthorized modifications, corrosion or other cosmetic issues caused by storage, application or environmental conditions. Modifications to products not specifically delineated in the manual accompanying the product at initial sale will void all warranties. This Limited Warranty shall not extend to products or parts which have been damaged by negligent use, misuse, alteration, accident or which have been improperly/inadequately maintained.

Service Parts:

GSI warrants, subject to all other conditions described in this Warranty, Service Parts which it manufactures for a period of 12 months from the date of purchase, unless specified in Enhancements above. Parts not manufactured by GSI will carry the Manufacturer's Warranty.

(Protein Limited Warranty_REV01_06 November 2018)

This equipment shall be installed in accordance with the current installation codes and applicable regulations, which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.



**1004 E. Illinois St.
Assumption, IL 62510-0020
Phone: 1-217-226-4421
Fax: 1-217-226-4420
www.automatedproduction.com / www.cumberlandpoultry.com**

