

## Assembly and Installation Instructions

Please read and save these instructions for future reference. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Upon receiving unit, check for any damage that may have occurred during transit and report it immediately to the shipper. Also verify that all accessory items are accounted for.

Weatherhood Parts List			
Parts		45°	90°
1	Top Panel	✓	✓
2	Right Side Panel	✓	✓
3	Left Side Panel	✓	✓
4	Front Diagonal Panel	✓	✓
5	Front Panel		✓
6	Bottom (Brace or Panel)	✓	✓
7	Birdscreen	✓	✓
8	Right Deflection Angle		✓
9	Front Deflection Angle		✓
10	Left Deflection Angle		✓
11	Reinforcing Braces (sizes 54-72 only)		✓
12	Fasteners	✓	✓

Weatherhood Dimensions					
Model		A	B	C	D
45° Weatherhood	WTHD-8	11¼ (286)	10½ (267)	1 (25)	13¼ (337)
	WTHD-10	13¾ (340)	12½ (318)	1 (25)	15 (381)
	WTHD-12	15½ (397)	14½ (368)	1¼ (32)	16½ (419)
	WTHD-14	17¾ (448)	16½ (419)	1¼ (32)	18 (457)
	WTHD-16	19¾ (498)	18½ (470)	1¼ (32)	19½ (495)
	WTHD-18	21¾ (549)	20½ (521)	1¼ (32)	22 (559)
	WTHD-20	23¾ (600)	22½ (572)	1¼ (32)	25 (635)
	WTHD-24	30¾ (772)	29 (737)	1½ (38)	27 (686)
	WTHD-30	36½ (927)	35 (889)	1½ (38)	29¼ (743)
	WTHD-36	42½ (1080)	41 (1041)	1½ (38)	33¼ (845)
	WTHD-42	48½ (1232)	47 (1194)	1½ (38)	36 (914)
	WTHD-48	54¾ (1391)	53¼ (1353)	1⅝ (41)	40⅝ (1032)
WTHD-54	60¾ (1546)	59½ (1511)	1½ (38)	44¾ (1137)	
WTHD-60	67 (1702)	65½ (1664)	1½ (38)	48 (1219)	
WTHD-72	79½ (2019)	78⅞ (1984)	1¼ (32)	53¼ (1353)	
90° Weatherhood	WTHD-8	12 (305)	10⅝ (270)	¾ (19)	16⅞ (416)
	WTHD-10	14 (356)	12¾ (324)	¾ (19)	18½ (470)
	WTHD-12	16⅞ (416)	15½ (394)	¾ (19)	20⅞ (518)
	WTHD-14	18⅞ (467)	17½ (445)	¾ (19)	22½ (572)
	WTHD-16	20⅞ (518)	19½ (495)	¾ (19)	25 (635)
	WTHD-18	22⅞ (568)	21½ (546)	¾ (19)	27½ (699)
	WTHD-20	24⅞ (619)	23½ (597)	¾ (19)	29¼ (756)
	WTHD-24	31¼ (806)	28⅝ (727)	1½ (38)	36 (914)
	WTHD-30	37⅞ (962)	34⅝ (879)	1½ (38)	40⅞ (1019)
	WTHD-36	43⅞ (1114)	40⅞ (1032)	1½ (38)	45½ (1156)
	WTHD-42	49⅞ (1267)	46⅞ (1184)	1½ (38)	49¼ (1251)
	WTHD-48	56 (1422)	52¼ (1340)	1½ (38)	55½ (1410)
WTHD-54	62¼ (1581)	59 (1499)	1½ (38)	61⅞ (1553)	
WTHD-60	68⅞ (1737)	65⅞ (1654)	1½ (38)	66½ (1689)	
WTHD-72	80⅞ (2054)	77½ (1969)	1½ (38)	72⅞ (1832)	

All dimensions shown in inches (millimeters).

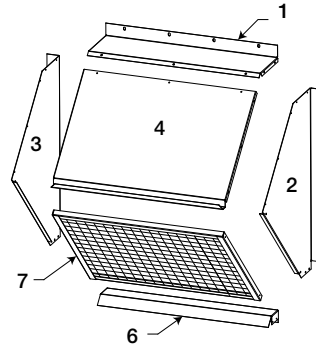


Figure 1:  
45° Weatherhood

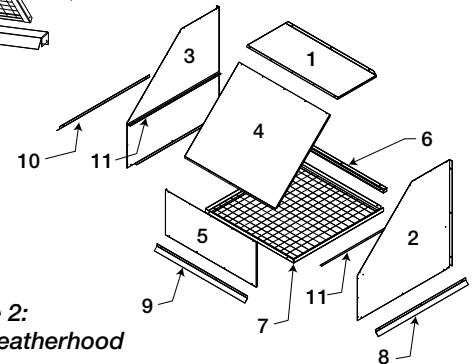
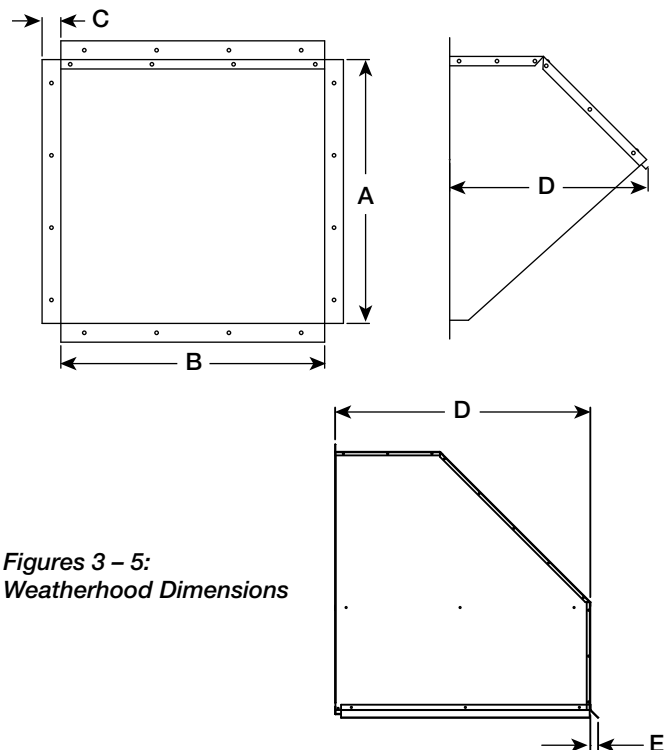


Figure 2:  
90° Weatherhood



Figures 3 – 5:  
Weatherhood Dimensions

## 45° Weatherhood Assembly

1. Refer to Figure 1 to identify parts for assembly.
2. Assemble front diagonal panel (4) to right side panel (2) with 5/8 inch (16 mm) length sheet metal screws. Overlap the flange on the front diagonal panel (4), over the right side panel (2).
3. Repeat step 2 for left side panel (3).
4. As shown in Figure 6, assemble the top panel (1) to the front diagonal panel (4) and side panels (2 & 3) overlapping with the flanges. Use 5/8 inch (16 mm) length supplied sheet metal screws.

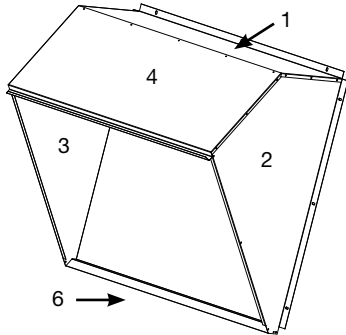


Figure 6:  
Assembly

5. Install the bottom panel (6) to the sides using the 5/8 inch (16 mm) length sheet metal screws. Place the bottom panel (6) inside each flanged side.
6. Refer to Figure 7 and slide the birdscreen into the bottom of the assembled weatherhood through the openings on the underside. Place birdscreen in the frame and rest on the flanges on each side. Fasten screen to each side using the 5/8 inch (16 mm) length sheet metal screws.

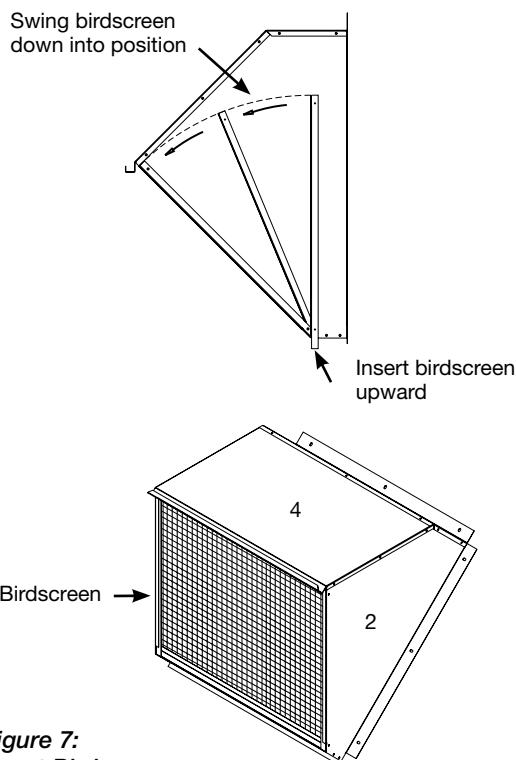


Figure 7:  
Insert Birdscreen

## 90° Weatherhood Assembly

1. Refer to Figure 2 to identify parts for assembly.
2. Using #12 x 5/8 inch (16 mm) screws, attach side panels (2 & 3) to front panel (5). Overlap the sides with the flange of the front panel.

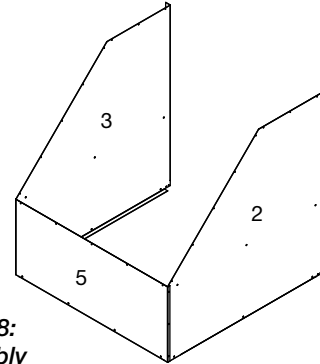


Figure 8:  
Assembly

3. Secure the front diagonal panel (4) using #12 x 5/8 inch (16 mm) screws to the front panel (5) and side panels (2 & 3). Overlap the front panel (5) and side panels (2 & 3) with flanges of the front diagonal panel (4).

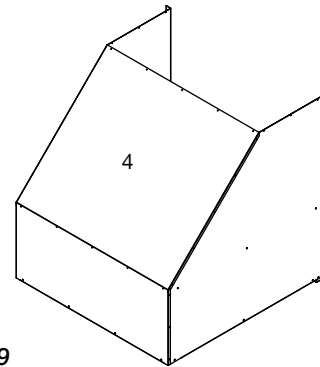


Figure 9

4. Attach top panel (1) to the front diagonal panel (4) and side panels (2 & 3) using #12 x 5/8 inch (16 mm) screws. Overlap the front diagonal (4) and side panels (2 & 3) with the flanges of the top panel (1).

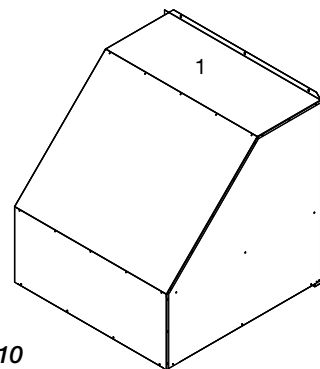


Figure 10

5. Install bottom brace (6) to the inside of side panels (2 & 3) using #12 x 5/8 inch (16 mm) screws.

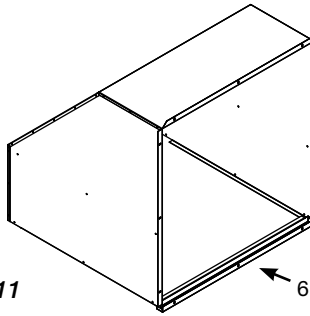


Figure 11

5a. **For sizes 54-72 only:** Install reinforcing braces (11) to the inside of side panels (2 & 3) using #12 x 5/8 inch (16 mm) screws.

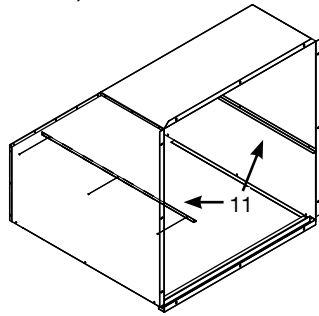


Figure 12

6. Mount assembled weatherhood to the unit.

Figure 13:  
Wall Housing

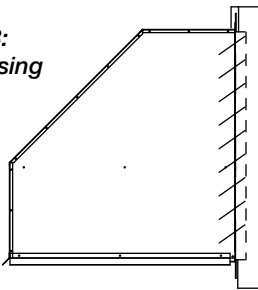


Figure 14:  
Wall Collar

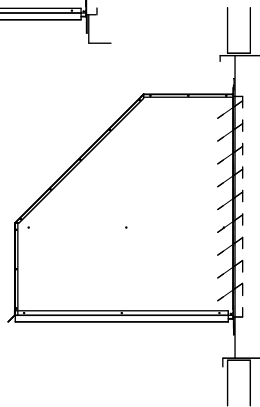
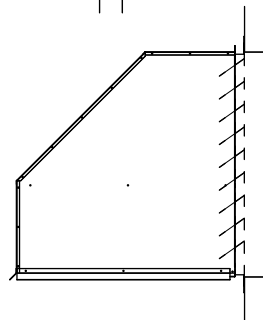


Figure 15:  
Wall Opening



7. Slide birdscreen into the assembled weatherhood through the notches on the underside of the side panels (2 & 3). Work the screen in so the frame of the screen rests on the flanges of the front panel (5) and side panels (2 & 3), and bottom brace (6).

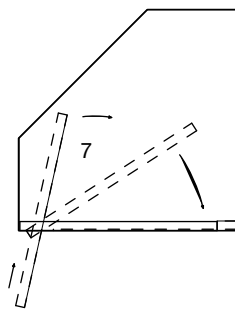


Figure 16:  
Insert Birdscreen

8. Fasten front and side deflectors (8-10) to the front (5) and side panels (2 & 3) and birdscreen with #12 x 3/4 inch (19 mm) tek screws.

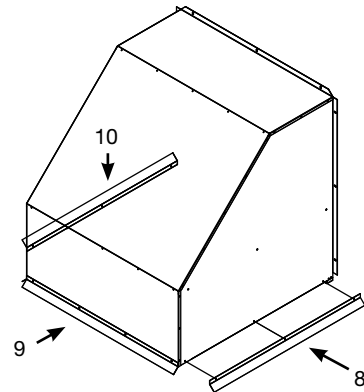


Figure 17

## Typical Installation

### DANGER

Always disconnect, lock and tag power source before installing or servicing. Failure to disconnect power source can result in fire, shock or serious injury.

1. Move weatherhood to desired location.
2. Weatherhood may be mounted directly to the wall or to the fan wall housing or wall collar.

**NOTE:** Units mounted directly to the wall require a different wall opening (W.O.) size than those mounted in wall housings or wall collars.

### DIRECT TO WALL

1. Cut an appropriate sized hole in the wall using the recommended wall opening (W.O.).
2. For a weathertight seal, add silicone to the flange prior to mounting.
3. Mount weatherhood directly to the wall using corrosion-resistant fasteners.

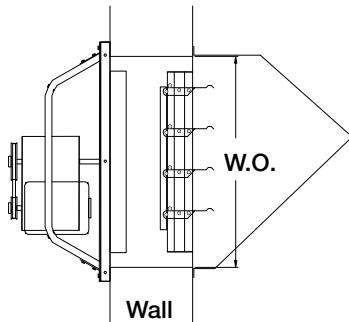


Figure 18: Direct To Wall

Recommended Wall Opening (W.O.) Direct To Wall, see Figure 18	
Model	45° and 90° Weatherhood (Square)
WTHD-8	10½ (267)
WTHD-10	12½ (318)
WTHD-12	14½ (368)
WTHD-14	16½ (419)
WTHD-16	18½ (470)
WTHD-18	20½ (521)
WTHD-20	22½ (572)
WTHD-24	29 (737)
WTHD-30	35 (889)
WTHD-36	41 (1041)
WTHD-42	47 (1194)
WTHD-48	53¼ (1353)
WTHD-54	59½ (1511)
WTHD-60	65½ (1664)
WTHD-72	78⅞ (1984)

All dimensions are in inches (millimeters).

## MOUNT TO WALL HOUSING OR WALL COLLAR

1. Cut an appropriate sized hole in the wall using the recommended wall opening (W.O.).
2. For a weathertight seal, add silicone to the flange prior to mounting.
3. Mount weatherhood to the wall housing or wall collar using corrosion-resistant fasteners.

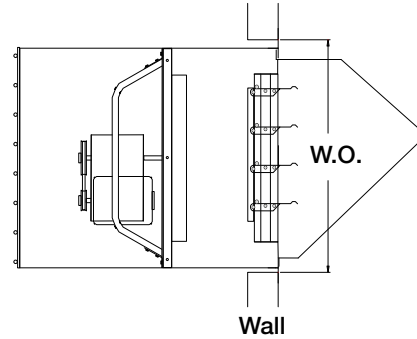


Figure 19: With Wall Housing

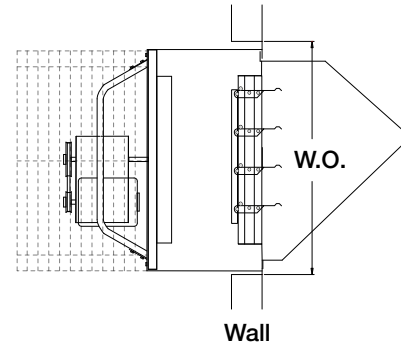


Figure 20: With Wall Collar

Recommended Wall Opening (W.O.) Wall Housing or Wall Collar, see Figures 19 & 20	
WTHD-8	14¼ (362)
WTHD-10	16¼ (413)
WTHD-12	19¼ (489)
WTHD-14	21¼ (540)
WTHD-16	23¼ (591)
WTHD-18	25¼ (641)
WTHD-20	27¼ (692)
WTHD-24	33¾ (857)
WTHD-30	39¾ (1010)
WTHD-36	45¾ (1162)
WTHD-42	51¾ (1314)
WTHD-48	57¾ (1467)
WTHD-54	63¾ (1619)
WTHD-60	69¾ (1772)
WTHD-72	84¾ (2153)

All dimensions are in inches (millimeters).

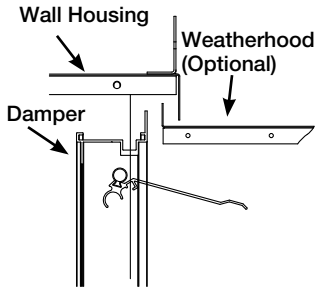
### MAINTENANCE

Disconnect and lockout power source before cleaning. Clean weatherhood of any accumulated dirt which would restrict airflow.

## Damper Installation

To install an optional damper, refer to Figure 21. Using a pneumatic or electric drill, run the self-drilling screws through the holes provided in the side and bottom damper flanges into the wall housing. Check damper for freedom of movement. If an optional damper guard or weatherhood is to be installed, refer to the next section.

### Damper Installed Inside



### Damper Installed Outside

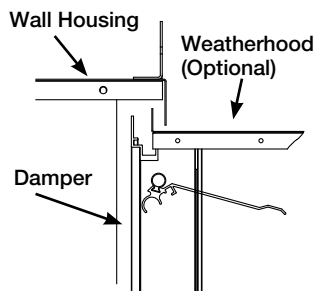


Figure 21

## Damper Guard or Weatherhood Installation

To install the damper guard, center guard over damper and fasten to wall housing using the self-drilling screws. Refer to Figure 22. To install the weatherhood, slide the top flange of weatherhood under the flange of wall housing, see Figure 21, and fasten with self-drilling screws.

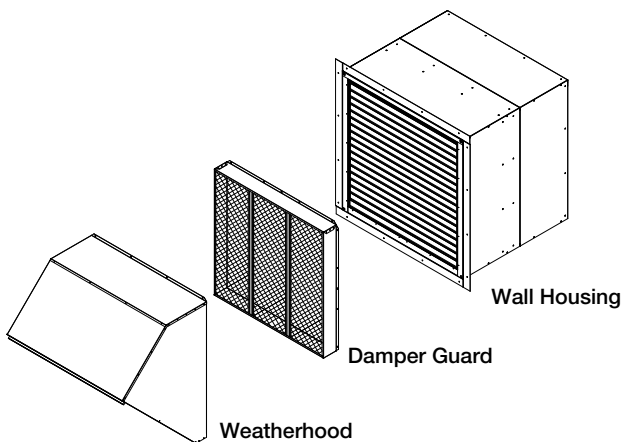


Figure 22

## Wall Housing Guard Installation

Attach wall housing guard to wall housing using the 1/4-20 x 3/4 thread cutting screw with washer. Refer to Figure 23.

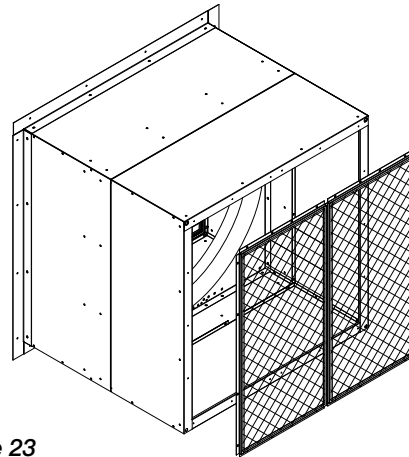


Figure 23

## Fit for Sidewall Propeller Fan Accessories

Figure 24 reveals the correct fit for sidewall propeller fans after all optional accessories have been assembled and installed.

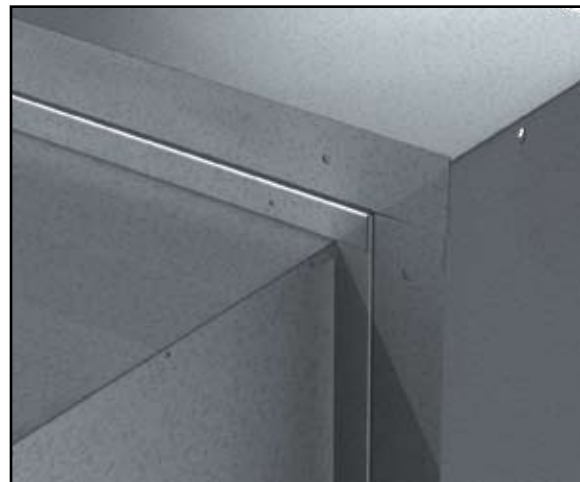


Figure 24:  
Sidewall Propeller Fan Accessories

## Warranty

Greenheck warrants this equipment to be free from defects in material and workmanship for a period of one year from the purchase date. Any units or parts which prove defective during the warranty period will be replaced at our option when returned to our factory, transportation prepaid. Motors are warranted by the motor manufacturer for a period of one year. Should motors furnished by Greenheck prove defective during this period, they should be returned to the nearest authorized motor service station. Greenheck will not be responsible for any removal or installation costs.

*As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.*

Greenheck Sidewall Propeller Fans Catalog provides additional information describing the equipment, fan performance, available accessories, and specification data.

AMCA Publication 410-96, Safety Practices for Users and Installers of Industrial and Commercial Fans, provides additional safety information. This publication can be obtained from AMCA International, Inc. at: [www.amca.org](http://www.amca.org).



Phone: (715) 359-6171 • Fax: (715) 355-2399 • E-mail: [gfcinfo@greenheck.com](mailto:gfcinfo@greenheck.com) • Website: [www.greenheck.com](http://www.greenheck.com)