Industrial Air Circulator Instructions



For All Direct Drive Commercial Exhaust Fans

READ AND SAVE THESE IMPORTANT INSTRUCTIONS

It is important that the following safety precautions be followed when using this product:

- ALWAYS disconnect unit from power source before cleaning or maintenance.
- ALWAYS turn off unit when not in use.
- DO NOT use an extension cord, unit is intended to be permanently hard wired to properly rated electrical service outlet.
- DO NOT place foreign objects through guards into blades.
- DO NOT allow unit to become wet or damp.
- DO NOT use this fan with any solid state speed control device.

WARNING: To avoid risk of fire, electrical shock or injury to persons, observe the following:

- A. Use this unit only in the manner intended by the manufacturer. If you have any questions contact the manufacturer.
- B. Before servicing or cleaning unit, switch power off at service panel and lock service panel to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag to the service panel.

ASSEMBLY INSTRUCTIONS

Models CE 10-D Thur CE 30-D, CE 10-DV and CE 30-DV

1. All of the above mentioned Direct Drive Commercial Exhaust Fans come pre-assembled. If you have purchased models incorporating a shutter or venturi please refer to the assembly instructions below.

<u>Note:</u> Models ending in "-DV" have the same assembly procedure described below, except the fan is attached to a venturi rather than a shutter. Venturi throat should be directed away from fan.

Models CE 10-DS Thru CE 24-DS

- 1. Find hardware kit provided with fan. Insert screw, #12 x 1, type AB (Item 3) into rubberized washer (Item 2). Screw should fully insert into washer with rubber side down. See figure 2 on reverse side.
- 2. Find nylon insert nuts (Item 5) provided with hardware kit. See figure 4 on reverse side.
- 3. Place nylon insert nuts (Item 5) into square holes on corner gussets located on the back side of the shutter (Item 6). See figure 6 on reverse side.
- 4. After installing insert nuts, place shutter face down (gusset side up). Find rubber bushing (Item 8) provided with hardware kit and place bushing so that they are centered over each nylon insert nut. Then place the fan assembly (Item 7) on top of the shutter so that the wire mounting hooks of the fan assembly's guard rest centered over the rubber bushings and insert nuts. Using a 5/16 nut driver or equivalent run the #12 screw (Item 3) and rubberized washer (Item 2) combination down through the centers of the guard mounting hooks, rubber bushings and into the nylon insert nuts. Securely tighten fasteners. Take care to avoid over tightening and stripping of the nylon insert nuts. See figure 8 on reverse side.

Models CE 30-DS

- 1. Find hardware kit provided with fan. Insert screw, #8-32 x 1 1/2" (Item 1) into rubberized washer (Item 2). Screw should fully insert into washer with rubber side down. See figuire 1 on reverse side.
- 2. Find rubber insert nuts (Item 4) provdied with hardware kit. See figure 3 on reverse side.

Note assembly instructions continued on page 3.

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FIGURE 5 CE 30-DS FIGURE 3

CE 30-DS SHOWN

FIGURE 6 CE 10-DS thur CE 24-DS

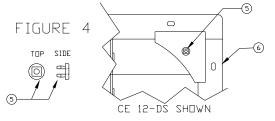
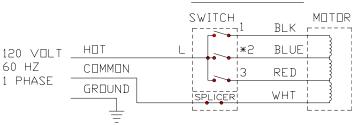


FIGURE 7 CE 30-DS SHOWN FIGURE 1

FIGURE 8

WIRING DIAGRAM



SWITCH WIRING MODELS: <u>CE 10-D thur CE 18-D</u> L=SUPPLY, HOT, BLACK 1=MOTOR, BLACK 2=MOTOR, BLUE 3=MOTOR, RED SPLICER=MOTOR & SUPPLY, COMMON, WHITE SCREW IN HANDY BOX=GREEN, GROUND

SWITCH WIRING MODELS:
CE 20-D thur CE 30-D
L=SUPPLY, HOT, BLACK
1=MOTOR, BLACK
*2=NDT USED
3=MOTOR, RED
SPLICER=MOTOR & SUPPLY, COMMON, WHITE
SCREW IN HANDY BOX=GREEN, GROUND

TDI	
TPI	RECOMMENDED ROUGH IN
MODEL	HOLE SIZE
CE 10-D	* 10.50 DIA. CIRCLE
CE 12-D	* 12.50 DIA. CIRCLE
CE 14-D	* 14.50 DIA. CIRCLE
CE 16-D	* 16.50 DIA. CIRCLE
CE 18-D	* 19.00 DIA. CIRCLE
CE 20-D	* 21.00 DIA. CIRCLE
CE 24-D	* 25.00 DIA. CIRCLE
CE 30-D	* 31.00 DIA. CIRCLE
CE 10-DS	10.50 SQ. HOLE
CE 12-DS	12.50 SQ. HOLE
CE 14-DS	14.50 SQ. HOLE
CE 16-DS	16.50 SQ. HOLE
CE 18-DS	18.50 SQ. HOLE
CE 20-DS	20.50 SQ. HOLE
CE 24-DS	24.50 SQ. HOLE
CE 30-DS	30.50 SQ. HOLE
CE 10-DV	10.50 SQ. HOLE
CE 12-DV	12.50 SQ. HOLE
CE 14-DV	14.50 SQ. HOLE
CE 16-DV	16.50 SQ. HOLE
CE 18-DV	18.50 SQ. HOLE
CE 20-DV	20.50 SQ. HOLE
CE 24-DV	24.50 SQ. HOLE
CE 30-DV	30.50 SQ. HOLE
	SOUADE IE NECESSARY

* HOLE MAYBE SQUARE IF NECESSARY

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ASSEMBLY INSTRUCTIONS con't.

Models CE 30-DS

- 3. Place rubber insert nuts (Item 4) into round holes on corner gussets located on the backe side of the shutter (Item 6). It maybe necessary to twist insert nut while pushing or <u>lightly</u> tap insert nuts into round holes using a hammer. See figure 5 on reverse side.
- 4. After installing insert nuts, place shutter face down (gusset side up). Find rubber bushing (Item 8) provided with hardware kit and place bushing so that they are centered over each rubber insert nut. Then place the fan assembly (Item 7) on top of the shutter so that the wire mounting hooks of the fan assembly's guard rest centered over the rubber bushings and insert nuts. Using a #2 phillips screw driver or equivalent runt the #8-32 x 1/2" screw (Item 1) and rubberized washer (Item 2) combination down through the centers of the guard mounting hooks, rubber bushings and into the rubber insert nuts. Securely tighten fastners. Take care to avoid allowing the rubber insert nuts (Item 4) from being pulled up through the shutter gusset hole before nut has properly expanded. See figure 8 on reverse side.

INSTALLATION INSTRUCTIONS

Models: CE 10-D Thru CE 30-D and CE 10 DS Thru CE 30-DS and CE 10-DV thru CE 30-DV

- 1. See previous side for recommended wall holes sizes.
- 2. Attach fan to installation wall surface as follows for applicable wall structure.
 - A. Wood structure use 1/4" lag screws of appropriate length through each mounting hole.
 - B. Steel Structure use 1/4" bolt of appropriate length for application, in combination with a 1/4" flat washer and a 1/4" nut.
 - C. Masonry Structure use 1/4" lag screw in combination with a lag shield or equivalent 1/4" masonry fastener of appropriate length.
- 3. The above mentioned hardware for mounting fans to wall surfaces is not provided by the manufacturer, since each mounting application is different. However these items can be obtained from your local hardware store.
- 4. If shutter is attached be sure when mounted that the shutter blades will open upward.

Note:

This unit is equipped with a speed selector switch, which allows you to select a desired amount of air delivery. The motor is equipped with a thermo-protector and will automactically de-energize the fan if it were to over heat for any reason. If this should happen immediately disconnect unit from the power source.

CLEANING / MAINTENANCE INSTRUCTIONS

All maintenance should be done by either TPI Corporation or a qualified electrician. The motor bearings are lubricated at the factory and should not require any additional lubrication. However, if bearings lubrication is required apply a small amount of a high temperature bearing grease.

Use an air hose or vacuum to remove any air born contaminates which may have settled on motor or bearings. Use mild detergent to clean blade and guards. Avoid allowing the cleanser to come in contact with the motor bearings or windings. Allow fan to completely dry before next use.

Reference parts list on reverse side of this instruction sheet. Save these important instructions. Your TPI Air Circulator carries a one year warranty.

For additional information on TPI Products or replacement parts, call TPI Customer Service Department at 1-800-251-0382 or write the address below.

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ITEM			EMO			-			TPI P/N:	QTY.	DESCRIPTION
ND. 1	-10	-12	-14	-16	-18	-20	-24	-30	58419-000	1	GUARD, 10°, W/ WALL MOUNT BRACKETS
1	$\left(\right)$								63807-001	1	GUARD, 12", W/ WALL MEUNT BRACKETS
1		$ \frown$	\sim						58419-001	1	GUARD, 14", W/ WALL MOUNT BRACKETS
1				\triangleright					58419-002	1	GUARD, 16", W/ WALL MOUNT BRACKETS
				\vdash	\triangleright					1	GUARD, 18*, W/ WALL MOUNT BRACKETS
1					$ \sim$	\triangleright			63806-001	-	
1						$ \sim$	\triangleright		58419-003	1	GUARD, 20", W/ WALL MOUNT BRACKETS
1							\frown		63804-001	1	GUARD, 24*, W/ WALL MOUNT BRACKETS
1								\frown	63804-001	1	GUARD, 30°, W/ WALL MOUNT BRACKETS
2	\frown	\frown	\bigtriangledown	\sim	\sim				58181-002	1	MOTOR, 120V, 1.1A, 1725, 3 SPD, SHADED POLE
2			\bigtriangleup	$ \vdash$	$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	\vdash	\sim		58158-002	1	MOTOR, 120V, 2.2A, 1725, 3 SPD, PSC
2			\bigtriangledown	\sim	\sim	$\mathrel{\mathrel{}}$	\bigotimes	\bigcirc	58165-001	1	MOTOR, 120V, 2.5A, 1100, 2 SPD, PSC
3	\bigotimes	\bigcirc	\bigcirc	$\mathrel{\mathrel{}}$	\diamondsuit	$\mathrel{\mathrel{}}$	\Leftrightarrow	\bigcirc	41449-001	1	COVER, PLATE, HANDY BOX
4	\bigotimes	\Leftrightarrow	\bigcirc	$\mathrel{\mathrel{}}$	\diamondsuit	$\mathrel{\mathrel{\mathop{\boxtimes}}}$	\Leftrightarrow	\bigcirc	58071-001	1	SWITCH, PULL CHAIN
5	\bigotimes	\diamondsuit	\diamondsuit	\mathrel{i}	\diamondsuit	\mathrel{i}	\diamondsuit	\bigotimes	4418	2	
6	\mapsto	\diamondsuit	\diamondsuit	$\mathrel{\check{\leftarrow}}$	\diamondsuit	$\mathrel{\check{\leftarrow}}$	\diamondsuit	\bigotimes	43651-001	2	SCREW, #6-32, PANHEAD, PHILLIPS
7	\leftarrow	\diamondsuit	\diamondsuit	$\mathrel{}$	\diamondsuit	$\mathrel{}$	\diamondsuit	\bigotimes	41315-001	1	HANDY BOX
8	\bigotimes	ightarrow	\bigtriangleup	arrightarrow	\bowtie	arphi	\nearrow	\bowtie	1374	2	SCREW, #8-18 × 1/2, HEX, SELF DRILLING
9	\bowtie								54936-001	1	FAN BLADE ASSEMBLY, 10 INCH
9		\bowtie							58478-001	1	FAN BLADE ASSEMBLY, 12 INCH
9			ightarrow						58514-001	1	FAN BLADE ASSEMBLY, 14 INCH
9				arproptom					58514-002	1	FAN BLADE ASSEMBLY, 16 INCH
9					ert				58299-008	1	FAN BLADE ASSEMBLY, 18 INCH
9						$ert \sim$			58514-003	1	FAN BLADE ASSEMBLY, 20 INCH
9							\bowtie		58299-003	1	FAN BLADE ASSEMBLY, 24 INCH
9								\bowtie	58299-004	1	FAN BLADE ASSEMBLY, 30 INCH
10	\bowtie	\bowtie	ightarrow	\bowtie	\bowtie	\bowtie	\bowtie	\bowtie	4900	4	NUT, #8-32, NYLOCK, HEX
11	\bowtie	\bowtie	$\left \right>$	\bowtie	$\left \right>$	\bowtie	\mid	\bowtie	43957-001	4	WASHER FLAT
12	\bowtie	X	ightarrow	ert	\bowtie	\bowtie	\bowtie	\ge	1458	1	GREUND SCREW
13	\mid	\bowtie	\ge	ert imes	\succ	ert imes	\ge		43944-001	1	KIT, HARDWARE CE 10-24 INCH
14								\bowtie	43945-001	1	KIT, HARDWARE CE 30 INCH
15	\bowtie								08684302	1	SHUTTER, WALL 10"
15		\bowtie							07985502	1	SHUTTER, WALL 12"
15			\ge						08684502	1	SHUTTER, WALL 14"
15				\mid					08684702	1	SHUTTER, WALL 16"
15					\geq				07985602	1	SHUTTER, WALL 18"
15						ert imes	Ļ,		07975202	1	SHUTTER, WALL 20"
15							ert imes		07985702	1	SHUTTER, WALL 24"
15								\bowtie	07985802	1	SHUTTER, WALL 30"
16	\mid								58184-003	1	VENTURI, 10 INCH
16		\bowtie							58184-001	1	VENTURI, 12 INCH
16			\ge	Ļ,					58184-004	1	VENTURI, 14 INCH
16				ert imes					58184-005	1	VENTURI, 16 INCH
16					ert imes	Ļ,			58184-002	1	VENTURI, 18 INCH
16						ert imes			58184-006	1	VENTURI, 20 INCH
16							ee		63812-001	1	VENTURI, 24 INCH
16								$\left \times \right $	63812-002	1	VENTURI, 30 INCH
17						\bowtie	\ge	\geq	29699-006	1	CAPACITER
18						\bowtie	\boxtimes	\ge	43942-001	1	BRACKET, CAPACITOR
19						\square	\square	[41019-001	1	BODT, RUBBER CAPACITOR