# **READ AND SAVE THESE INSTRUCTIONS**



### 

**WARNING:** To avoid fire, shock, and serious personal injury, follow these instructions.

### Safety Instructions

- 1. Read your owner's manual carefully and keep it for future reference.
- 2. Before servicing or cleaning unit, switch power off at service panel and lock service panel disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a warning device, such as a tag, to the service panel.
- 3. Be careful of the fan and blades when cleaning, painting, or working near the fan. Always turn off the power to the ceiling fan before servicing.
- 4. Do not put anything into the fan blades while they are turning.
- 5. Do not operate reversing switch until fan blades have come to a complete stop.

### Additional Safety Instructions for Installation

- 1. To avoid possible shock, be sure electricity is turned off at the fuse box before wiring, and do not operate fan without blades.
- 2. All wiring must be in accordance with the National Electrical Codes "ANSI/NFPA 70-2008" and Local Electrical Codes. Use the National Electrical Code if Local Codes do not exist. The ceiling fan must be grounded as a precaution against possible electrical shock. Electrical installation should be made or approved by a licensed electrician.
- 3. The outlet box and joist must be securely mounted and capable of reliably supporting at least 50 pounds. Use only U.L. outlet boxes listed as "Acceptable for Fan Support of 22.7 kg. (50 lbs.) or less", and use the mounting screws provided with the outlet box. Most outlet boxes commonly used for support of light fixtures are not acceptable for fan support and may need to be replaced. Consult a qualified electrician if in doubt.
- 4. The downrod furnished with the fan provides the minimum recommended floor to fan blade clearance for an 8 foot ceiling.
- 5. The fan must be mounted with the fan blades at least 7 feet from the floor to prevent accidental contact with the fan blades.
- 6. Follow the recommended instructions for the proper method of wiring your ceiling fan. If you do not know enough about electrical wiring, have your fan installed by a licensed electrician.

NOTE: All setscrews must be checked and re-tightened where necessary before installation.

**NOTE:** This fan is suitable for use with solid-state speed controls.

**WARNING:** To avoid fire, shock or injury, do not use an Emerson or any other brand of control not specifically approved for this fan.

**WARNING:** This product is designed to use only those parts supplied with this product and/or any accessories designated specifically for use with this product by Emerson Electric Co. Substitution of parts or accessories not designated for use with this product by Emerson Electric Co. could result in personal injury or property damage.

**WARNING:** To reduce the risk of personal injury, do not bend the blade flange when installing the blade flanges, balancing the blades or cleaning the fan. Do not insert foreign objects in between rotating fan blades.

**WARNING:** To reduce the risk of electrical shock, this fan must be installed with an isolating wall control/switch.

NOTE: This fan is suitable for use in wet locations when installed in a GFCI protected branch circuit.

#### THIS FAN IS SUITABLE FOR WET LOCATIONS SUCH AS COVERED PORCHES, COVERED PATIOS, AND COVERED DECKS... ANYWHERE THERE IS A ROOF OVERHEAD.

#### DATE CODE:

The date code of this fan may be found on the box, stamped in ink on a white label. You should record this data above and keep it in a safe place for future use.

### This Manual Is Designed to Make it as Easy as Possible for You to Assemble, Install, Operate and Maintain Your Ceiling Fan

### **Tools Needed for Assembly**

One Phillips head screwdriver One 1/4" blade screwdriver One stepladder One wire stripper

### MATERIALS

Wiring outlet box and box connectors must be of type required by the local code. The minimum wire would be a 3-conductor (2-wire with ground) of the following size:

Installed Wire Length Up to 50 ft. 50-100 ft. <u>Wire Size A.W.G</u>. 14 12

### A WARNING

Before assembly your ceiling fan, refer to section on proper method of wiring your fan (page 8). If you feel you do not have enough wiring knowledge or experience, have your fan installed by a licensed electrician.

## **Unpacking Instructions**

### **WARNING**

Do not install or use fan if any part is damaged or missing.

### **WARNING**

This product is designed to use only those parts supplied with this product and/or any accessories designated specifically for use with this product by Emerson Electric Co. Substitution of parts or accessories not designated for use with this product by Emerson Electric Co. could result in personal injury or property damage.

 Check to see that you have received the following parts:

## NOTE: If you are uncertain of part description, refer to exploded view illustration.

- a. Fan motor assembly
- b. One coupling cover
- c. One ceiling cover
- d. Five fan blades
- e. Five fan blades support plates
- f. One lower housing
- g. One light kit assembly including: one bowl cap and one finial nut
- h. One hanger bracket
- i. One hanger ball/4.5" downrod assembly
- j. One lower glass
- k. Three 25-watt (maximum) candelabra base bulbs
- I. One loose parts bag containing:
  - 1. One clevis pin
  - 2. One hairpin clip
  - 3. Three 12 ga. wire connectors
  - 4. Two #8-32 x 1-1/4" threaded studs
  - 5. Two #8 external tooth lockwashers
  - 6. Two #8-32 knurled knobs
  - 7. Sixteen #10 24 x 15mm washer head screws
  - 8. One #8 32 x 10mm pan head screw
  - 9. Two pull chain couplings

- 10. Two wood pendants (large & small)
- 11. One balancing kit

NOTE: Place the parts from the loose parts bags in a small container to keep them from being lost. If any parts are missing, contact your local retailer or catalog outlet for replacement before proceeding.

- **2.** Remove and discard the two cardboard shipping retainers securing the motor hub in the motor housing assembly.
- **3.** Remove the fan motor assembly from the protective plastic bag. Place all carton contents on a protective surface.



### **Electrical Requirements**

Your new ceiling fan will require a grounded electrical supply line of 120 volts AC, 60 Hz, 15 amp circuit.

The outlet box must be securely anchored and capable of withstanding a load of at least 50 pounds.

### 📤 WARNING

To reduce the risk of fire, electrical shock, or personal injury, mount fan to outlet box marked "Acceptable for Fan Support of 22.7 kg. (50 lbs.) or less", and use screws supplied with outlet box. Most outlet boxes commonly used for support of light fixtures are not acceptable for fan support and may need to be replaced. Consult a qualified electrician if in doubt.

If your fan is to replace an existing ceiling light fixture, turn electricity off at the main fuse box at this time and remove the existing light fixture.

### 🛦 WARNING

Turning off wall switch is not sufficient. To avoid possible electrical shock, be sure electricity is turned off at the main fuse box before wiring. All wiring must be in accordance with National and Local codes and the ceiling fan must be properly grounded as a precaution against possible electrical shock.

### 🕰 WARNING

To avoid fire or shock, follow all wiring instructions carefully. Any electrical work not described in these instructions should be done or approved by a licensed electrician.

## How to Put Your Ceiling Fan Together

### A WARNING

Turning off wall switch is not sufficient. To avoid possible electrical shock, be sure electricity is turned off at the main fuse box before wiring. All wiring must be in accordance with National and Local codes and the ceiling fan must be properly grounded as a precaution against possible electrical shock.

- Remove the hanger ball by loosening the setscrew in the hanger ball until the ball falls freely down the downrod (Figure 1). Remove the clevis pin from the downrod, then remove the hanger ball. Retain the pin and hanger ball for reinstallation in Step 5.
- 2. Loosen setscrew in motor coupling if necessary. Separate, untwist and unkink the three 80" motor leads. Route the motor lead wires through the downrod. Align the clevis pin holes in the downrod with the holes in the motor coupling. Install the clevis pin and secure with the hairpin clip (Figure 2). The clevis pin must go through the holes in the motor coupling and the holes in the downrod. Be sure to push the straight leg of the hairpin clip through the hole near the end of the clevis pin until the clevis pin. The hairpin clip snaps around the clevis pin. The hairpin clip must be properly installed to prevent the clevis pin from working loose. Pull on the downrod to make sure the clevis pin is properly installed.

### 🔺 WARNING

It is critical that the clevis pin in the motor coupling is properly installed and the setscrews securely tightened. Failure to verify that the pin and setscrews are properly installed could result in the fan falling.





### How to Put Your Ceiling Fan Together (continued)

**3.** While pulling up on the downrod, securely tighten the two setscrews in the motor coupling (Figure 3).

NOTE: The setscrews must be properly installed as described above, or fan wobble could result.

- 4. Make sure the grommet is properly installed in the coupling cover then slide the coupler cover on the downrod until it rests on the motor housing. Place the ceiling cover over the downrod. Be sure both the ceiling cover and the coupler cover are oriented correctly (Figure 3).
- 5. Reinstall the hanger ball (Figure 4) on the downrod as follows. Route the motor leads through the downrod. Position the pin through the two holes in the downrod and align the ball so the pin is captured in the groove in the top of the hanger ball. Pull the hanger ball up tight against the pin and securely tighten the setscrew in the hanger ball. A loose setscrew could create fan wobble.

### A WARNING

It is critical that the pin in the hanger ball is properly installed and the setscrew securely tightened. Failure to verify that the pin and setscrew are properly installed could result in the fan falling.

- 6. The fan comes with blue, black and white leads that are 80" long. Before installing fan, measure up approximately 6 to 9-inches above top of hanger ball/downrod assembly. Cut off excess leads and strip back insulation 1/2-inch from end of leads.
- 7. Turn fan motor assembly upside down in preparation for mounting fan blades. Position the top and bottom halves of the styrofoam packaging on end, with solid styrofoam facing outward. Set side-by-side on the floor with a six to eight-inch gap between the halves (Figure 5). Carefully place the partially assembled ceiling fan on the styrofoam halves, with the hanger ball/downrod assembly positioned in the gap and the fan motor assembly resting on top of the styrofoam ends.







### How to Put Your Ceiling Fan Together (continued)

 Slide blade through center slot in fan housing. Position one blade support plate onto blade. Mount blade to fan housing using one blade support plate and secure using three #10 - 24 x 15mm washer head blade screws (Figure 6).

## NOTE: Take care not to scratch fan housing when installing blades.

- Remove one #8 32 x 10mm pan head screw from the lower housing adapter (reserve for later use). Loosen the other two screws to assemble the lower housing to the lower housing adapter (Figure 7).
- Position the lower housing onto the fan motor assembly, aligning each of the the three holes. Rotate the lower housing to engage the two loosened screws in the two key hole slots. Replace the #8 - 32 x 10mm pan head screw (removed previously) and tighten all three screws to secure the lower housing to the lower housing adapter. (Figure 8).

## NOTE: Make sure wires are not pinched between fan motor assembly and lower housing.

11.Engage the connector of the light kit assembly with the motor connector (Figure 9). The two connectors are keyed and color-coded and must be mated correctly (color-to-color) before they can be engaged. Make sure the connector latch closes properly.

NOTE: Make sure all wires and connector are tucked under the light kit assembly and not pinched between light kit assembly and lower housing.

- 12. Remove one #8 32 x 10mm pan head screw from the lower housing (reserve for later use). Loosen the other two screws to assemble the light kit assembly to the lower housing (Figure 9).
- Position the light kit assembly onto the lower housing, aligning each of the the three holes. Rotate the light kit assembly to engage the two loosened screws in the two key hole slots. Replace the #8 - 32 x 10mm pan head screw (removed previously) and tighten all three screws to secure the light kit assembly to the lower housing. (Figure 10).



## **How to Hang Your Ceiling Fan**

### 🕰 WARNING

The fan must be hung with at least 7' of clearance from floor to blades (Figure 11).

### 🔺 WARNING

The outlet box and joist must be securely mounted and capable of supporting at least 50 lbs. Use only a U.L. outlet box listed as "Acceptable for Fan Support of 22.7 kg. (50 lbs.) or less".

### A WARNING

To reduce the risk of fire, electrical shock, or personal injury, mount fan to outlet box marked "Acceptable for Fan Support of 22.7 kg. (50 lbs.) or less", and use screws supplied with outlet box. Most outlet boxes commonly used for support of light fixtures are not acceptable for fan support and may need to be replaced. Consult a qualified electrician if in doubt.

- 1.Securely attach the hanger bracket to the outlet box using the two screws supplied with the outlet box. (Figure 12.)
- 2. Carefully lift the fan and seat the hanger ball/downrod assembly on the hanger bracket that was just attached to the outlet box (Figure 12). Be sure the groove in the ball is lined up with tab on the hanger bracket (Figure 13).

### **WARNING**

Hanger bracket must seat firmly against outlet box. If the outlet box is recessed, remove wall board until bracket contacts box. If bracket and/or outlet box are not securely attached, the fan could wobble or fall.

### A WARNING

Failure to seat tab in groove could cause damage to electrical wires and possible shock or fire hazard.

### A WARNING

To avoid possible fire or shock, do not pinch wires between the hanger ball/downrod assembly and hanger bracket.







## **How to Wire Your Ceiling Fan**

If you feel that you do not have enough electrical wiring knowledge or experience, have your fan installed by a licensed electrician.

### 🛦 WARNING

To avoid possible electrical shock, be sure electricity is turned off at the main fuse box before wiring. NOTE: If you are not sure if the outlet box is grounded, contact a licensed electrician for advice, as it must be grounded for safe operation.

 Connect the green grounding lead from the hanger ball and the green grounding lead from the hanger bracket to the grounding conductor of supply (this may be a bare wire or wire with green colored insulation). Securely connect wires with wire connectors supplied.

#### NOTE: If you are using an Emerson Light Fixture with your fan, see Light Fixture Owner's Manual for wiring.

2. Securely connect the fan motor white wire to the supply white (neutral) wire using wire connector supplied (Figure 14). Securely connect the fan motor black wire to the supply black (hot) wire using wire connector supplied (Figure 14). After connections have been made, turn leads upward and carefully push leads into the outlet box, with the white and green leads on one side of the outlet box and the black leads on the other side of the outlet box.

### A WARNING

Check to see that all connections are tight, including ground, and that no bare wire is visible at the wire connectors, except for the ground wire. Do not operate fan until blades are in place. Noise and fan damage could result.

- Screw the two threaded studs (supplied) into the tapped holes in the hanger bracket.
- Lift the ceiling cover up to the threaded studs and turn until studs protrude through the holes in the ceiling cover (Figure 15).
- 5. Secure the ceiling cover in place by sliding lockwashers over the threaded studs and installing the two knurled knobs (supplied). (Figure 15). Tighten the knurled knobs securely until the ceiling cover fits snugly against the ceiling and the hole in the ceiling cover is clear of the downrod. Your fan is now wired to be turned on and off from the fan switch.

### A WARNING

To avoid possible fire or shock, make sure that the electrical wires are completely inside the outlet box and not pinched between the ceiling cover and the ceiling.





## **Installation of Lower Light Glass**

- 1. Screw three candelabra bulbs into the light kit assembly sockets (Figure 16).
- **2.** Unscrew the finial nut, bowl cap, hex jamnut and rubber washer from the light kit threaded nipple (Figure 17).
- **3.** Position the glass shade over the threaded nipple in the light kit plate assembly.
- Reinstall the rubber washer, hex jamnut, bowl cap and finial nut onto the threaded nipple (Figure 17).

#### NOTE: Periodically check that the glass bowl is seated correctly in the light kit assembly and the hex jamnut and finial nut are tightly fastened.

- 5. Assembly of the ceiling fan is now complete. Restore electrical power to the branch circuit at the fuse box or breaker panel.
- 6. Slide the small wood penadant onto the center (fan speed) chain, secure by connecting the coupling to the chain. Slide the large wood penadant onto the off-center (fan light) chain, secure by connecting the coupling to the chain. (Figure 18).
- 7. If airflow is desired in the opposite direction, turn the fan off and wait for the blades to stop turning. Then slide the reversing switch, located on top of the fan motor assembly, to the opposite position (Figure 19) and turn the fan on again. The blades will turn in the opposite direction and reverse the airflow.



## Maintenance

#### IMPORTANT CARE INSTRUCTIONS for your Ceiling Fan

Periodic cleaning of your new ceiling fan is the only maintenance that is needed.

When cleaning, use only a soft brush or lint free cloth to avoid scratching the finish.

Abrasive cleaning agents are not required and should be avoided to prevent damage to finish.

### A WARNING

Do not use water when cleaning your ceiling fan. It could damage the motor or the blades and create the possibility of an electrical shock.

### Accessories

1. Ceiling Fan/Light Controls (see store or catalog).

### A WARNING

A WARNING

The use of any other control not specifically approved for this fan could result in fire, shock and personal injury. This product is designed to use only those parts supplied with this product and/or any accessories designated specifically for use with this product by Emerson Electric Co. Substitution of parts or accessories not designated for use with this product by Emerson Electric Co. could result in personal injury or property damage.

TROUBLE	PROBABLE CAUSE	SUGGESTED REMEDY
1. Fan will not start.	1. Fuse or circuit breaker blown.	<ol> <li>Check main and branch circuit fuses or circuit breakers.</li> </ol>
	<ol> <li>Loose power line connections to the fan, or loose switch wire connections in the switch housing</li> </ol>	2. Check line wire connections to fan and switch wire connections in the switch housing.
	switch housing.	▲ WARNING: Make sure main power is turned OFF.
2. Fan sounds noisy.	1. Blades not attached to fan.	1. Attach blades to fan before operating.
	2. Loose screws in motor housing.	2. Check to make sure all screws in motor housing are snug (not over-tight).
	<ol> <li>Wire connectors inside switch housing rattling.</li> </ol>	<ol><li>Check to make sure wire connectors in switch housing are not rattling against each other or against the interior wall of the switch housing.</li></ol>
		<b>A WARNING:</b> Make sure main power is turned OFF.
	4. Screws holding blades to flywheel are loose.	4. Tighten screws securely.
3. Fan wobbles excessively.	1. Setscrew in motor coupling is loose.	1. Tighten both setscrews securely in the motor coupling.
	2. Setscrew in hanger ball/downrod assembly is loose.	<ol> <li>Tighten the setscrew in the hanger ball/ downrod assembly.</li> </ol>
	3. Screws securing fan blades to flywheel are loose.	3. Check to be sure screws which attach the fan blades to the motor are tight.
	4. Hanger bracket and/or ceiling outlet box is not securely fastened.	4. Tighten the hanger bracket screws to the outlet box, and/or secure outlet box.
	5. Fan blades out of balance.	<ol> <li>Interchanging an adjacent (side-by-side) blade pair can redistribute the weight and result in smoother operation.</li> </ol>



Key			Model Numbers		
No.	Description	CF850AW00	CF850GES00	CF850VNB00	
*	Hanger Ball Assembly,				
	Consisting of:				
1	Hanger Bracket	_	_	_	
2	Hanger Ball	_	_	—	
3	Downrod (4.5")	—	-	—	
*	Parts Bag Containing:				
4	Wire Connector (3)	_	_	_	
5	Pin, Clevis (1)	_	_	—	
6	Clip, Hairpin (1)	_	_	_	
7	Threaded Stud, #8 - 32 x 1-1/4" (2)	_	_	—	
8	Lockwasher, External Tooth #8 (2)	_	_	—	
9	Knurled Knob, #8 - 32 (2)	_	_	—	
10	Screw, Washer Head, #10 - 24 x 15mm (16)	_	_	—	
11	Screw, Pan Head, #8 - 32 x 10mm (1)	_	_	—	
12	Rubber Washer (1)	_	_		
13	Hex Jam Nut (1)	_	_	—	
14	Pull Chain Coupling (2)	_	_		
15	Wood Pendants (Large & Small) (2)	_	_	—	
16	Balancing Kit (1)	_	_	_	
17	Canopy, Ceiling (1)				
18	Motor Coupling Cover (1)				
19	Wiring Harness (1)				
20	Lower Housing Assembly (1)				
21	Light Kit Assembly (Includes Switch Harness Assembly) (1)				
22	Light Kit Glass				
23	Bowl Cap (1)				
24	Finial Nut (1)				
25	Blade Support Plates (set of 5)				
26	Blades (set of 5)				
_	Owner's Manual				

### Before discarding packaging material, be certain all parts have been removed. HOW TO ORDER REPAIR PARTS

### WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

PART NUMBER

PART DESCRIPTION · NAME OF ITEM · MODEL NUMBER

Notes

Notes

## LIMITED WARRANTY