

MODERN FORMS SMART FANS

ORB 62" & 82"  
FR-W1816-62L; 82L

INSTALLATION INSTRUCTIONS



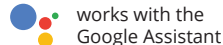
WET

DC

MOTOR



SMART



modernforms.com

All Modern Forms Smart Fans are:



WET

Durably finished and Rated for interior and exterior use



SMART

Able to coordinate with smart devices for voice-activated and thermostat control



Wet location-listed to the strictest ETL/cETL safety regulations

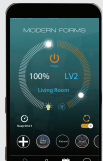
DC  
MOTOR

Quiet, reliable, and up to 70% more efficient than AC fans



Wi-Fi and RF enabled for unlimited control

APP INSTRUCTIONS AND SMART HOME DEVICE INTEGRATION  
[modernforms.com/mfapps](http://modernforms.com/mfapps)



FREE APP DOWNLOAD

Sync with our exclusive Modern Forms app to control fan speed, use smart features like Adaptive Learning, create groups and reduce energy costs



RF WALL CONTROL

**F-WC-WT**

Included with each fan  
6 fan speeds  
Dims light to 1%  
ON/OFF



WIFI TOUCH PANEL  
WALL CONTROL

**F-TS-BK** Black  
**F-TS-WT** White  
Sold separately  
Full app control

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# 1. SAFETY RULES

For operation, maintenance, and troubleshooting information, visit [modernforms.com/help](http://modernforms.com/help).

1. To reduce the risk of electric shock, ensure electricity has been turned off at the circuit breaker or fuse box before beginning.
2. All wiring must be in accordance with the National Electrical Code “ANSI/NFPA 70” and local electrical codes. Electrical installation should be performed by a qualified licensed and insured electrician.
3. The outlet box and support structure must be securely mounted and capable of reliably supporting a minimum of 35 lbs (15.9 kg). Use only UL-listed outlet boxes marked “FOR FAN SUPPORT.”
4. The fan must be mounted with a minimum of 7 ft. (2.1m) clearance from the trailing edge of the blades to the floor.
5. Never place objects in the path of the blades.
6. To avoid personal injury or damage to the fan and other items, be cautious when working around or cleaning the fan.
7. Do not use chemicals when cleaning the fan or fan blades. A dry dust cloth or lightly dampened cloth will be suitable for most cleaning.
8. After making electrical connections, spliced conductors should be turned upward and pushed carefully up into the outlet box. The wires should be spread apart with the grounded conductor and the equipment-grounding conductor on one side of the outlet

box and ungrounded conductor on the other side of the outlet box.

9. All set screws must be checked and re-tightened where necessary before installation.

**WARNING:** To reduce the risk of electric shock, this fan must be installed and operated with the supplied wall control, or controlled from the Modern Forms app or WIFI Touch Panel wall control (not included).

**WARNING:** To reduce the risk of personal injury, do not bend the blade arms when installing the brackets, balancing the blades or cleaning the fan.

**WARNING:** Do not insert foreign objects between rotating fan blades.

**WARNING:** To reduce the risk of fire, electric shock, personal injury or damage to the fan or other items, mount the fan to the outlet box marked acceptable for fan support with the screws provided with the outlet box.

**NOTE:** For use only with light kits marked “Suitable for use in wet locations.”

**NOTE:** A maximum of 2 fans can operate on a circuit through the supplied wall control.

**NOTE:** A maximum of 12 fans can operate on a circuit through an on/off switch or a breaker when utilizing the Modern Forms app for the fan control (without the wall control in the circuit).

## 2. FTC ENERGY GUIDE & SPECIFICATION

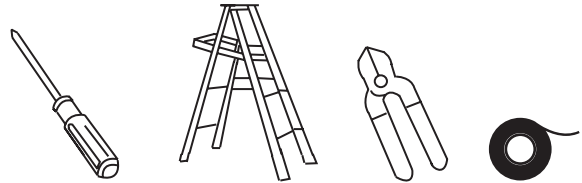
FAN	FAN SIZE	VOLTS	N.W. (lbs)	G.W. (lbs)	STANDARD	ELECTRICITY	AIR FLOW	ENERGY COSTS*	FAN EFFICACY
Orb 62	62"	120	7.28	11.50	High Speed	44W	8123 CFM	\$12/yr	183.4 CFM/W
			3.90	5.40	Weighted Average	24W	4875 CFM	\$7/yr	202 CFM/W

FAN	FAN SIZE	VOLTS	N.W. (lbs)	G.W. (lbs)	STANDARD	ELECTRICITY	AIR FLOW	ENERGY COSTS*	FAN EFFICACY
Orb 82	82"	120	7.28	11.50	High Speed	48W	9064 CFM	\$13/yr	190.4 CFM/W
			5.40	6.90	Weighted Average	26W	5470 CFM	\$7/yr	211 CFM/W

\* Estimated annual energy cost based on \$0.12 per kWh and 6.4 hours use per day.

## 3. TOOLS AND MATERIALS REQUIRED

- **Phillips screwdriver**
- **Step ladder**
- **Wire cutters**
- **Electrical tape**

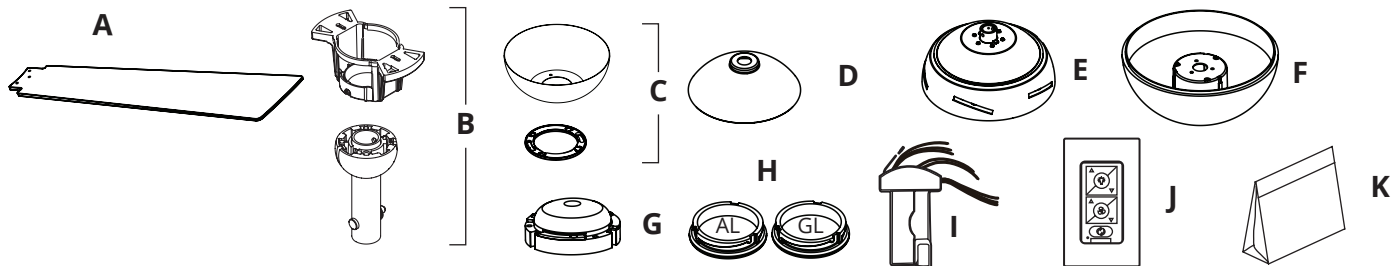


## 4. PACKAGE CONTENTS

Unpack your fan and check the contents. You should have the following items:

REF.	DESCRIPTION	PART NO.
A	Blade Set of 5 (62")	RPL-F1816-62-BD-**
	Blade Set of 5 (82")	RPL-F1816-82-BD-**
B	Hanger Assembly	RPL-F1816-HANGER-**
	w/ Mounting Bracket	---
C	Canopy w/ Canopy Ring	RPL-CAN-RND-**
D	Coupling Cover	RPL-COU-CVR-**
E	Motor Assembly	
F	Bottom Housing	
G	LED Module	F3IN-120V-R1-30
H	Light Shade (Aluminum and glass) (1 pc each)	RPL-F1816-GLA***
I	Control Receiver w/Hardware (62")	RPL-F1816-62-**
	Control Receiver w/Hardware (82")	RPL-F1816-82-**
J	Wall Control w/Hardware	F-WC-WT

\*\*\*Glass Light Shade Only



## 4. PACKAGE CONTENTS (cont.)

REF.	DESCRIPTION	PART NO.
K	Hardware Bag	RPL-ORB-PARTS
	3/16"x15mm Phillip Flat Head Screw (16)	
	Φ4.7x14x2mm Rubber Washer (16)	
	Φ6.5x19x2mm Flat Washer (1)	
	3/16"(Φ5.2x8.4x1.0mm) Spring Washer (1)	
	#10x76mm Pan Head Phillip Wood Screws (1)	
	5/32"x19mm+S Phillip Truss Head Screw (Diameter 7.5mm) (4)	
	M4x14x1mm Flat Washer (4)	

**NOTE:** \*\* denotes finish code of fan

## 5. MOUNTING OPTIONS

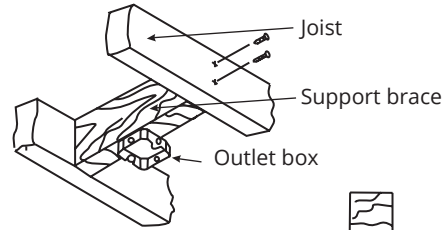
If there isn't an existing UL/CUL listed mounting box, then read the following instructions. Disconnect the power by removing fuses or turning off circuit breakers.

Secure the outlet box directly to the building structure. Use appropriate fasteners and building materials. The outlet box and its support must be able to fully support the moving weight of the fan (at least 35 lbs). Do not use plastic outlet boxes.

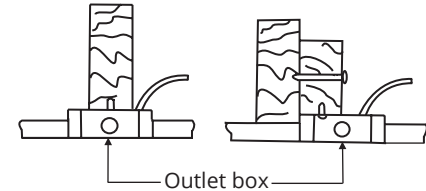
Figures 1, 2 and 3 are examples of different ways to mount the outlet box.

**NOTE:** You may need a longer downrod to maintain proper blade clearance when installing on a steep, sloped ceiling (Fig. 3).

To hang your fan where there is an existing fixture but no ceiling joist, you may need an installation hanger bar as shown in (Fig. 4).

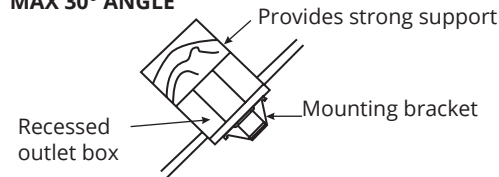


**FIGURE 1**

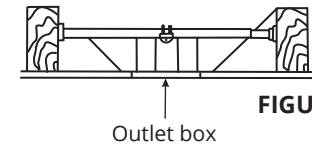


**FIGURE 2**

### SLOPED CEILING MAX 30° ANGLE



**FIGURE 3**



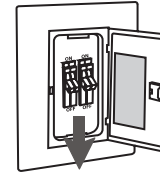
**FIGURE 4**



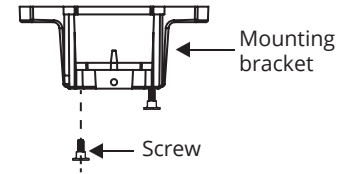
## 6. INSTALLING THE MOUNTING BRACKET

**REMEMBER** to turn off the power. Follow the steps below to hang your fan properly:

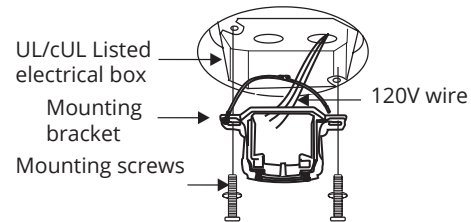
1. Disconnect power at the breaker to the fan location. A licensed electrician must install the fan (Fig. 5).
2. Remove 1 of 2 screws from the bottom of mounting bracket and save for use in section 13. Loosen the other screw (Fig. 6).
3. Pass the 120-volt supply wires through the center hole in the ceiling mounting bracket as shown in (Fig. 7).
4. Secure the mounting bracket to the ceiling outlet box with the screws and washers provided with your outlet box (Fig. 7).



**FIGURE 5**



**FIGURE 6**



**FIGURE 7**

## 7. ATTACHING THE FAN BLADES

1. Locate motor assembly and place it upside-down on a soft surface.
2. Insert the fan blade through the slot in the housing. Align the holes in the blade with the fan motor assembly holes and secure with a blade attachment screw with rubber washers (Fig. 8).
3. Repeat this procedure with the remaining fan blades.

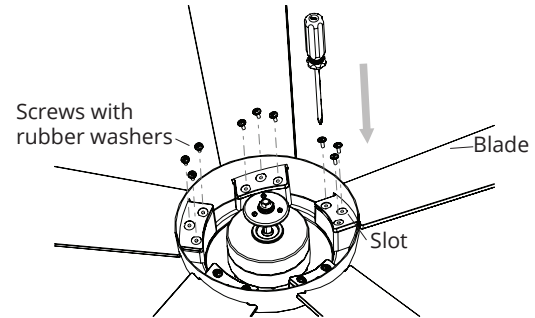


FIGURE 8

## 8. INSTALLING THE LOWER HOUSING

1. Remove one of the three mounting plate screws from the mounting ring and loosen the other two screws (Do not remove).
2. Place the key holes in the lower housing over the two screws previously loosened from the mounting ring. Turn the adapter plate until the mounting plate locks in place at the narrow section of the key holes (Fig. 9).
3. Securely tighten the two mounting plate screws previously loosened and the one previously removed.

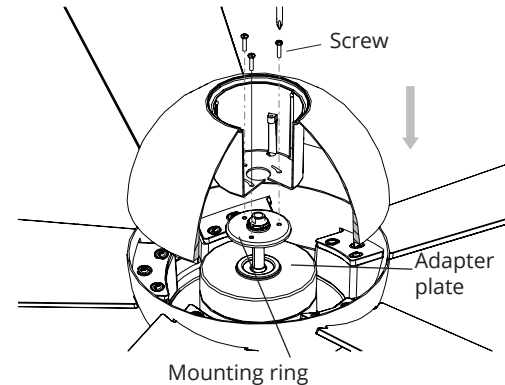


FIGURE 9

## 9. INSTALLING THE LED LUMINAIRE MODULE

**WARNING:** Before starting installation, disconnect the power by turning off the circuit breaker or removing the fuse at fuse box.

**NOTE:** If you do not plan to install the luminaire module with your fan at this time, skip to section 14.

1. Raise and hold the LED luminaire module close to the adapter plate and proceed to secure the wire connections. Connect the white wire connector from the luminaire module to the white wire of the fan. Follow the same procedure with the black wire connectors (Fig. 11).
2. Lower the LED and tug the connection neatly (Fig. 12).
3. Align 2 small cut outs on LED with the 2 thread rods (Fig. 13).
4. Lock LED with screw using 1 remaining hole (Fig. 14).
5. Remove the 2 threaded rods and replace them with LED plate screws (Fig. 15).

FIGURE 10

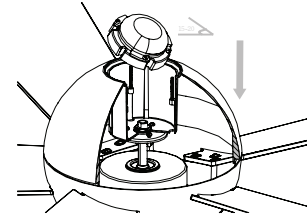


FIGURE 11

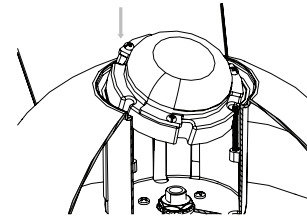


FIGURE 12

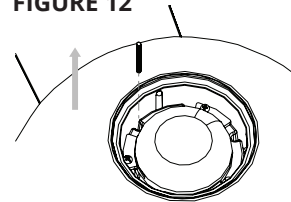


FIGURE 14

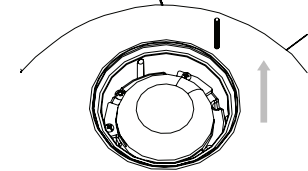


FIGURE 13

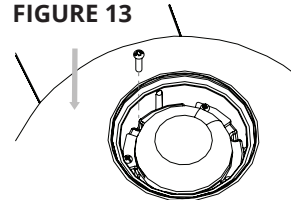
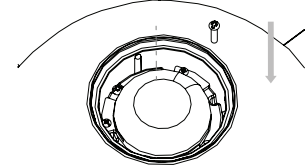


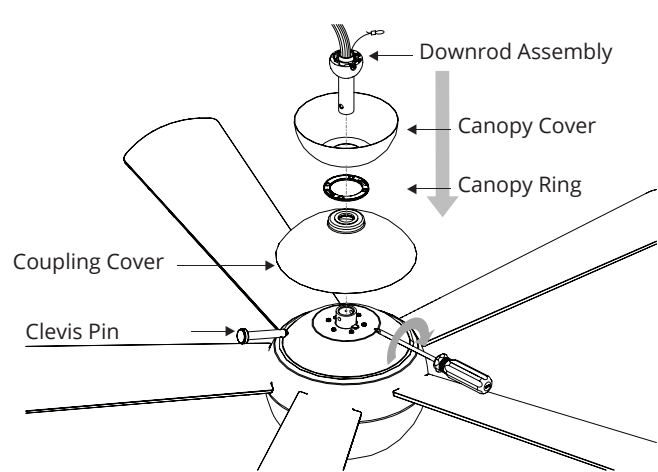
FIGURE 15



## 10. HANGING THE FAN

1. Remove the clevis pin and cotter pin and loosen the two collar screws from the motor collar (Fig. 16).
2. Feed motor wires through coupling cover, canopy ring, and canopy.
3. Feed motor wire through downrod assembly.
4. Thread the downrod assembly onto motor collar. Align the holes of downrod and collar and insert the cotter pin and clevis pin. Tighten the two collar screws (Fig. 16).

**WARNING:** Failure to properly install the cotter pin and/or tighten the set screws could result in the fan loosening and possibly falling.



**FIGURE 16**

## 10. HANGING THE FAN (cont.)

1. Carefully lift the fan motor assembly up to the mounting bracket and seat the hanger ball in the mounting bracket socket. Make sure the tab on the mounting bracket socket is properly seated in the groove in the hanger ball. Rotate the socket assembly until the ball drops and locks into the hanger bracket screw (Fig. 17).
2. Secure the safety cable to the building structure using a spring washer, flat washer, and wood screw provided (Fig. 18).

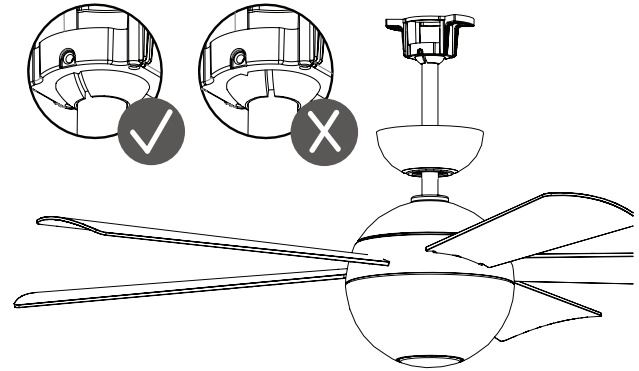


FIGURE 17

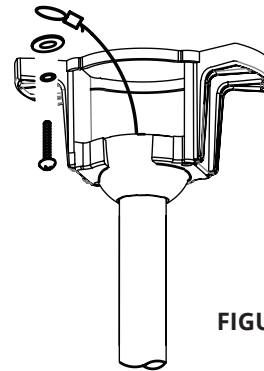


FIGURE 18

## 11. MAKING THE ELECTRICAL CONNECTIONS

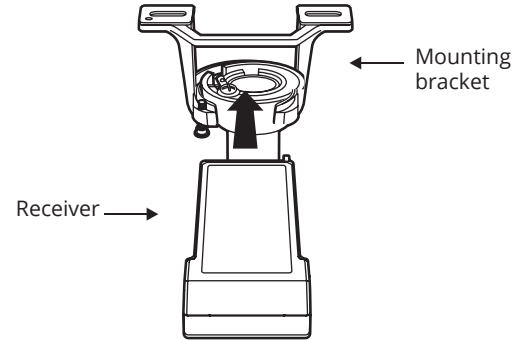
**WARNING:** To avoid possible electrical shock, be sure electricity is turned off at the main fuse box before wiring.

**WARNING:** Installation of this fan requires that a three-conductor cable (including ground wire) be run between the ceiling and wall outlet box.

**WARNING:** Check to see that all connections are tight, including ground, and that no bare wire is visible at the wire nuts, except for the ground wire.

Insert the receiver into the mounting bracket with the flat side of the receiver facing the ceiling (Fig 19).

Follow the steps on the next page to connect the fan to your household wiring. Use the included plastic wire nuts with your fan. Secure the plastic wire nuts with electrical tape. Make sure there are no loose strands or connections.



**FIGURE 19**

## 11. MAKING THE ELECTRICAL CONNECTIONS (cont.)

### Motor to receiver electrical connections: (Fig. 20)

1. Connect the hanger ball/downrod assembly ground wire, mounting bracket ground wire and receiver ground wire to the ground wire in outlet box.

**WARNING:** Failure to connect ground wires could result in poor fan control functionality.

2. Connect the red wire from the fan to the red wire marked "TO MOTOR" from the receiver.
3. Connect the gray wire from the fan to the gray wire marked "TO MOTOR" from the receiver.
4. Connect the yellow wire from the fan to the yellow wire marked "TO MOTOR" from the receiver.
5. Connect the white wire from the fan to the white wire marked "For Light" from the receiver.
6. Connect the black wire from the fan to the blue wire marked "For Light" from the receiver.

### Receiver to house supply wires electrical connections: (Fig. 20)

1. Connect the black (hot) wire from the ceiling to the black wire marked "AC in L" from the receiver.
2. Connect the white (neutral) from the ceiling to the white wire marked "AC in N" from the receiver.

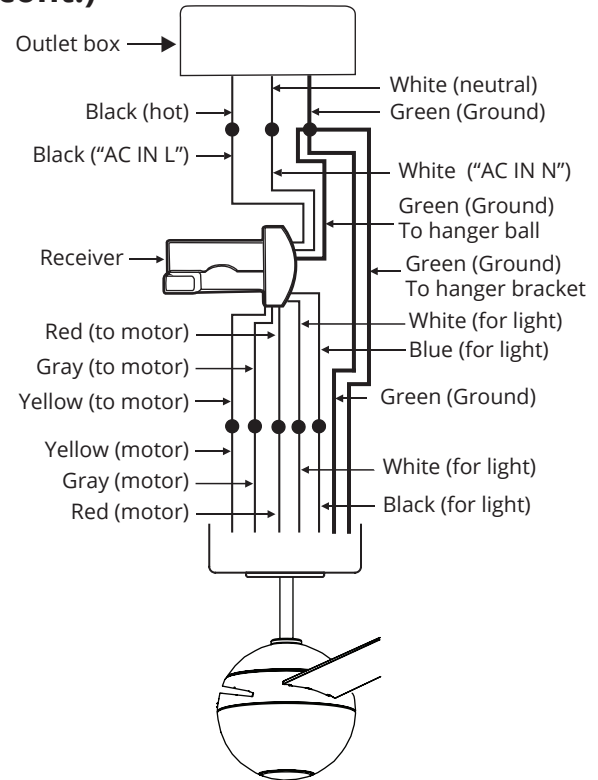


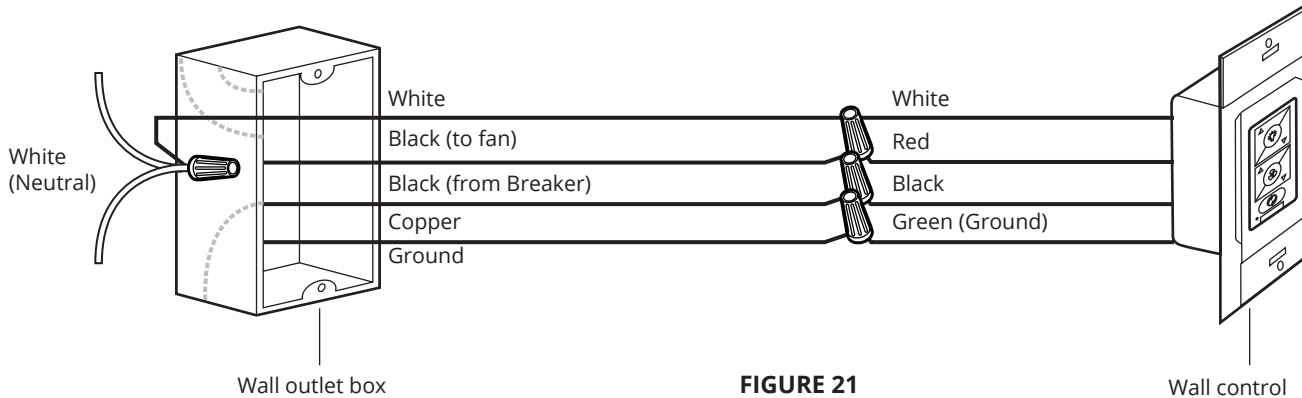
FIGURE 20

## 12. INSTALLING THE WALL CONTROL

**WARNING:** Remember to shut the power off at the circuit breaker or fuse box.

Wall control to wall outlet box electrical connections: (Fig. 14)

1. Connect ground wires - Important for proper control function.
2. Connect the black wire marked "LINE IN" from the control to the black LINE VOLTAGE wire from the outlet box that feeds back to the breaker.
3. Connect the red wire from the control to the black wire from the wall outlet box that feeds up to the fan.
4. Connect the white wire from the control to the white (neutral) wire from the wall outlet box.



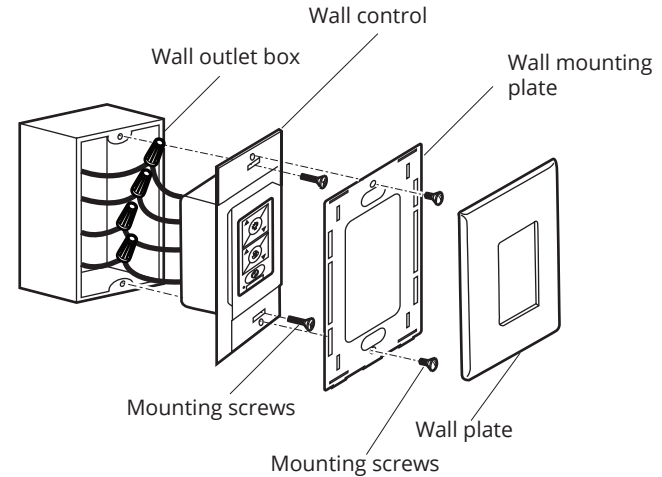


## 12. INSTALLING THE WALL CONTROL (cont.)

1. Carefully tuck the wire connections inside the junction box.  
Secure the wall control with the two wall control mounting screws provided (Fig. 22).
2. Attach the wall mounting plate over the wall control and secure with the two wall mounting plate screws provided.
3. Fasten the wall plate to the wall mounting plate.

**NOTE:** A maximum of 2 fans can operate on a circuit through the wall control.

**NOTE:** A maximum of 12 fans can operate on a circuit through an on/off switch or breaker when utilizing the app for the fan control (without the wall control in the circuit).

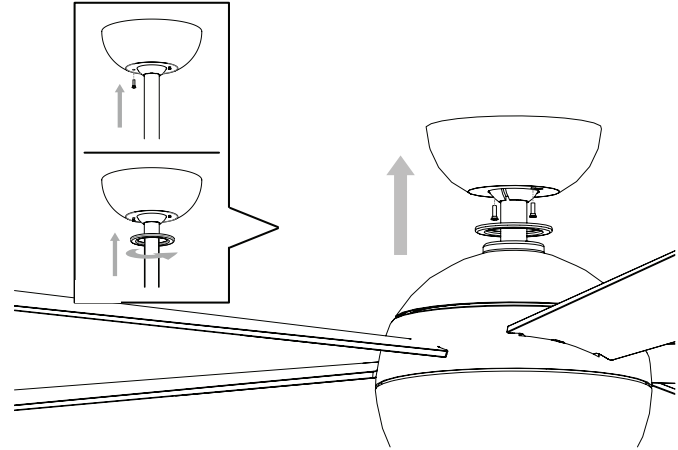


**FIGURE 22**

## 13. FINISHING THE INSTALLATION

1. Secure all wire connections with supplied wire ties to assist in canopy installation.
2. Tuck connections neatly into ceiling outlet box.
3. Slide the canopy up to the hanger bracket and place the key hole on the canopy over the screw on the hanger bracket. Turn canopy until it locks in place at the narrow section of the key holes (Fig. 23).
4. Align the circular hole on canopy with the remaining hole on the mounting bracket. Secure by tightening the one screw previously loosened and the one screw previously removed.
5. Adjust the screws as necessary until the canopy and canopy rings are snug (Fig 23).

**WARNING:** Make sure the tab at the bottom of the hanger bracket is properly seated in groove of hanger ball before attaching canopy to bracket. Failure to properly seat tab in groove could cause damage to electrical wiring.



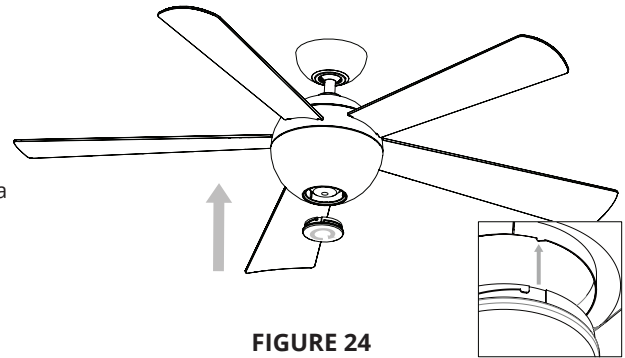
**FIGURE 23**

## 14. INSTALLING THE GLASS SHADE

1. Raise the glass up against the lower housing and secure by turning clockwise until snug. Do not over-tighten.
2. If installing the optional metal light cover, make sure it is securely tightened (Fig. 24).

**NOTE:** Add metal light cover if you do not need lighting function or prefer a different aesthetic (Fig. 24).

**NOTE:** Do not connect the LED connector wires if you are using the metal light cover.



**FIGURE 24**

# 15. WALL CONTROL OPERATING INSTRUCTIONS




Your DC brushless motor is equipped with an intuitive wall control. Restore power to ceiling fan and test the wall control as below for proper operation.

## Pairing the Wall Control to Your Fan

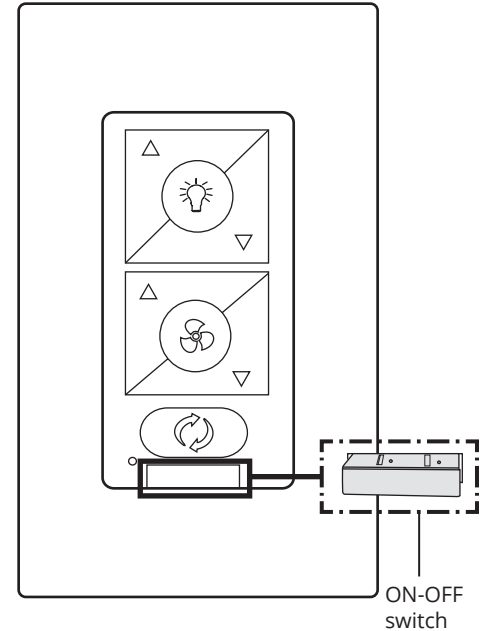
Your fan is pre-paired at the factory, No pairing is necessary.

## Wall Control Button Definitions

These seven buttons are used to set the fan speed as follows:

-  Button: turn the light ON or OFF  
Press/Hold  $\triangle$  to increase the desired light level.  
Press/Hold  $\nabla$  to decrease the desired light level.
-  Button: turn the fan ON or OFF  
Press/Hold the  $\triangle$  button to increase the fan speed through the speed settings.  
Press/Hold the  $\nabla$  button to decrease the fan speed through the speed settings.
-  Button: Switch between summer mode and winter mode.

**ON-OFF Switch:** Pull switch tab to power off in case of emergency. Not necessary for normal fan operation.



**FIGURE 25**

## 15. WALL CONTROL OPERATING INSTRUCTIONS (cont.)

**NOTE:** A maximum of 2 fans can operate on a circuit through the wall control.

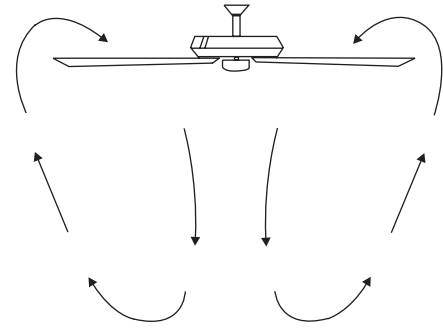
**NOTE:** A maximum of 12 fans can operate on a circuit through an on/off switch or breaker when utilizing the app for the fan control (without the wall control in the circuit).

**Summer Mode** - (counter-clockwise) A downward airflow creates a cooling effect as shown in Fig. 26. This allows you to set your air conditioner on a warmer setting without affecting your comfort.

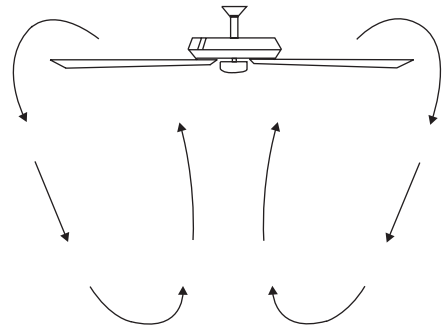
**Winter Mode** - (clockwise) An upward airflow moves warm air off the ceiling area and redistributes the warm air to the living space as shown in Fig. 27. This should allow for savings on heating costs.

**NOTE:** To operate the reverse function on this fan, press the reverse button while the fan is running.

**NOTE:** Fans do not change the temperature in the room, they change the comfort level allowing you to save energy.



**FIGURE 26**



**FIGURE 27**

## 16. APPLICATION

In addition to the included wall control, you can control the fan through the Modern Forms app.

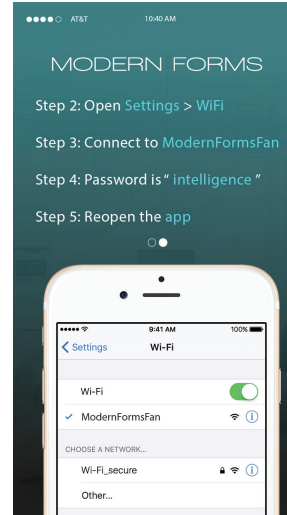
1. To use the app, download it for free from the App Store or Google Play.
2. Open the app to create your account. You can also log in with your Facebook or Google account.
3. Next, set up a WiFi connection. You'll need the SSID and WiFi password for the network you want to connect to.
4. You'll receive a prompt to name your fan device and upload a picture of it if you choose.
5. The app will walk you through the main screen and show you how to create schedules, change fan speeds, dim the light, switch between Summer/Winter mode, invite users, create groups and much more. Refer to app instructions for more details.

**NOTE:** A maximum of 2 fans can operate on a circuit through the wall control.

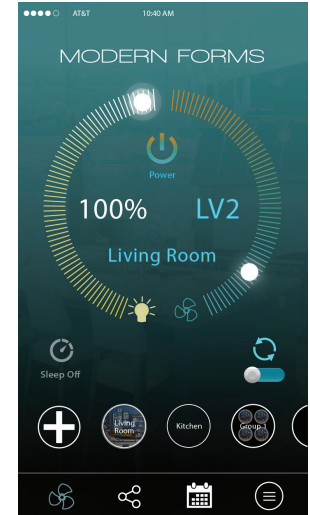
**NOTE:** A maximum of 12 fans can operate on a circuit through an on/off switch or breaker when utilizing the app for the fan control (without the wall control in the circuit).

FR-W1816

**FIGURE 28**



**FIGURE 29**







APP INSTRUCTIONS AND SMART HOME DEVICE INTEGRATION  
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## 17. TROUBLESHOOTING

<b>Problem</b>	<b>Solution</b>
Fan will not start.	<ol style="list-style-type: none"><li>1. Check circuit fuses or breakers.</li><li>2. Check wall control LED indicator light. If LED is not illuminated when pushing a button, it is not transmitting a signal. Please check power to wall control and all electrical connections.</li><li>3. Assure that there are no more than 2 fans operating on a circuit through the wall control. Assure that there are no more than 12 fans operating on a circuit through an on/off wall switch or a breaker (not through a wall control).</li><li>4. Assure that the fan is within range of the Wifi (150 ft.) or wall control (30 ft.).</li></ol>
Fan sounds noisy.	<ol style="list-style-type: none"><li>1. Allow a 24-hour “breaking-in” period. Most noise associated with a new fan will disappear during this time.</li><li>2. Make sure all motor housing screws are securely fastened.</li><li>3. Make sure the screws that attach the fan blade to the fan are securely fastened.</li><li>4. Make sure your ceiling box is secure and rubber isolator pads are used between the mounting bracket and outlet box.</li></ol>
Fan wobbles.	<ol style="list-style-type: none"><li>1. Check that all blade and blade arm screws are securely fastened.</li><li>2. If the blade wobble is still noticeable, interchanging two adjacent (side by side) blades can redistribute the weight and possibly result in smoother operation.</li></ol>

## 18. ACCESSORIES

PRODUCT	MODEL	DESCRIPTION	FINISH
<b>WIFI TOUCH PANEL WALL CONTROL</b> 	F-TS	Full app control Wi-Fi range: Up to 150ft from router Sold separately	BK, WT
<b>RF WALL CONTROL</b> 	F-WC	Included with each fan 6 fan speeds Dims light to 1% ON/OFF Wall control range: Up to 30ft from fan Works in conjunction with Modern Forms Fan receiver (Not included)	WT
<b>COUPLER</b> 	XF-I	Connects two downrods	AS, BZ, CFI, DW, GB, GH, GW, LN, MB, MW, OB, SS, TT
<b>SLOPE CEILING KIT</b> 	XF-SCK	Designed to accommodate buildings with steeper sloped ceilings up to 45° or 12/12 pitch	AS, CFI, LN, SS, BZ, DW, GB, GH, GW, MB, MW, OB, TT



PRODUCT	MODEL	DESCRIPTION	FINISH	
	XF-12	12 in downrod	AS, CFI, LN, SS BZ, DW, GB, GH, GW, MB, MW, OB, TT	
	XF-18	18 in downrod	AS, CFI, LN, SS BZ, DW, GB, GH, GW, MB, MW, OB, TT	
	XF-24	24 in downrod	AS, CFI, LN, SS BZ, DW, GB, GH, GW, MB, MW, OB, TT	
	XF-36	36 in downrod	All our downrods are 3/4" I.D. and are threaded on the motor end to create an extra layer of security to allow for adjustments in the field.	AS, CFI, LN, SS BZ, DW, GB, GH, GW, MB, MW, OB, TT
	XF-48	48 in downrod		AS, LN, SS BZ, DW, GB, GH, GW, MB, MW, OB, TT
	XF-60	60 in downrod		AS, LN, SS BZ, DW, GB, GH, GW, MB, MW, OB, TT
	XF-72	72 in downrod		AS, LN, SS BZ, DW, GB, GH, GW, MB, MW, OB, TT

# Español

For instructions in Spanish please visit the link below.  
Para obtener instrucciones en español, visite el siguiente enlace.

**[www.modernforms.com/fan-instructions-espanol](http://www.modernforms.com/fan-instructions-espanol)**

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# Français

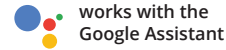
For instructions in French please visit the link below.  
Pour obtenir des instructions en français, veuillez visiter le lien ci-dessous.

**[www.modernforms.com/fan-instructions-francais](http://www.modernforms.com/fan-instructions-francais)**

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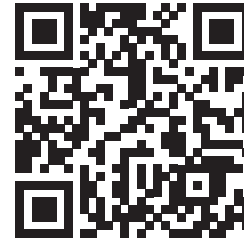
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