

MODERN FORMS SMART FANS

VORTEX FR-W1810

INSTALLATION INSTRUCTIONS



WET



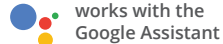
DC
MOTOR



SMART



UL LISTED
E187000 US



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
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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.

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).

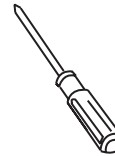
2. FTC ENERGY GUIDE & SPECIFICATION

| FAN | FAN SIZE | VOLTS | N.W. (lbs) | G.W. (lbs) | STANDARD | ELECTRICITY | AIR FLOW | ENERGY COSTS* | FAN EFFICACY |
|--------|----------|-------|------------|------------|------------------|-------------|----------|---------------|--------------|
| Vortex | 60" | 120 | 6.44 | 9.95 | High Speed | 29W | 7742 CFM | \$8/yr | 269.2 CFM/W |
| | | | | | Weighted Average | 23W | 4642 CFM | \$6/yr | 202 CFM/W |

NOTE: These are approximate measures. They do not include amps and wattage used by the light kit.

3. TOOLS AND MATERIALS REQUIRED

- Phillips screw driver
- Step ladder
- Wire cutters
- Electrical tape



4. PACKAGE CONTENTS

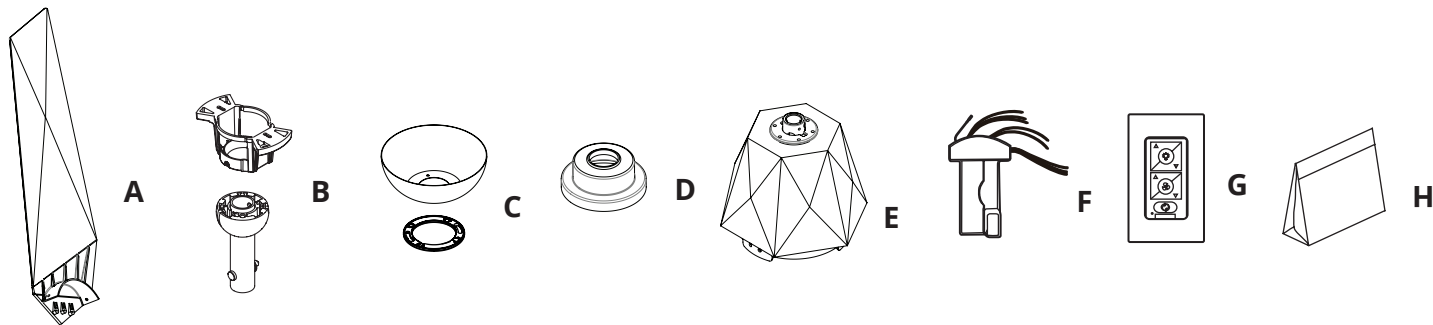
Unpack your fan and check the contents.
You should have the following items:

| REF. | DESCRIPTION | PART NO. |
|------|---|--------------------|
| A | Blade Set of 3 | RPL-F1810-60-BD.** |
| B | Hanger Assembly | RPL-HGR-ASM.** |
| | - Mounting Bracket | |
| | - Downrod Assembly | |
| | --- | --- |
| C | Canopy w/ Trim Canopy Ring | RPL-CAN-RND.** |
| D | Coupling Cover | RPL-COU-CVR.** |
| E | Motor Assembly | --- |
| F | Control Receiver w/ hardware | RPL-F1810-60-REC |
| G | Wall Control w/ Hardware | F-WC-WT |
| H | Blade Collector Ring | --- |
| I | Hardware Bag | RPL-VORTEX-PARTS |
| | 3/16" x 6mm Philips/ Slotted screws (13 pcs) - Blade Collector Ring | |
| | 1/4" x 11mm Philips/ Slotted flat head screws (7 pcs) - Blade Screws | |
| | Φ 5x14x1mm Flat washers (2) - Hanger Bracket | |
| | #8-32x38mm Pan Head Philips Screw (2) - Hanger Bracket | |
| | Φ 5.2x8.4x1mm Spring washers (2) - OPTIONAL for direct wood mount - Hanger Bracket | |
| | Φ 4.4x9.4x1mm Star washers (2) OPTIONAL for direct wood mount - Hanger Bracket | |
| | #10x38mm Pan head Philips wood screws (2) - OPTIONAL for direct wood mount - Hanger Bracket | |
| | Φ 5.2x8.4x1mm Spring washer (1) - Safety Cable | |
| | Φ 6.5x19x2mm Flat washer (1) - Safety Cable | |
| | #10x76mm Pan head Philips wood screw (1) -Safety Cable | |

NOTE: ** denotes finish code of fan

FR-W1810

4. PACKAGE CONTENTS (cont.)



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 and 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 Figure 4.

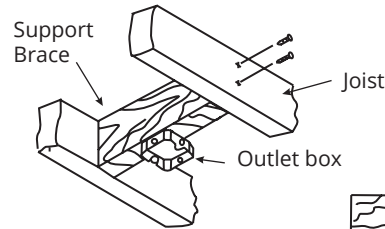


FIGURE 1

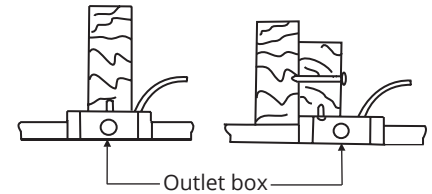


FIGURE 2

SLOPED CEILING MAX 30° ANGLE

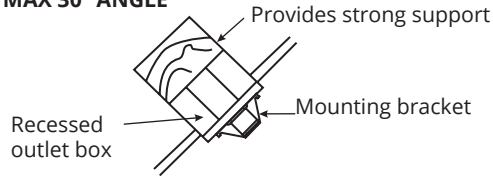


FIGURE 3

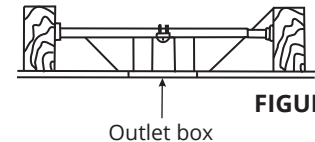


FIGURE 4

6. INSTALLING THE MOUNTING BRACKET

REMEMBER to disconnect the power by removing fuses or turning off circuit breakers. Follow the steps below to hang your fan properly:

1. Disconnect power to the fan location. A licensed electrician must install the fan if required by your local electrical code (Fig. 5).
2. Remove 1 of 2 screws from the bottom of the mounting bracket and loosen the other screws.
3. Pass the 120-volt supply wires through the center hole in the ceiling mounting bracket as shown in Figure 7.
4. Secure the mounting bracket to the ceiling outlet box with the screws and flat washers provided (Fig. 7).

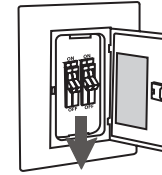


FIGURE 5

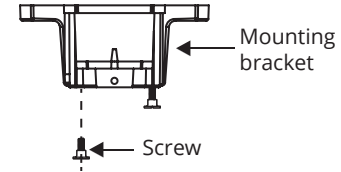


FIGURE 6

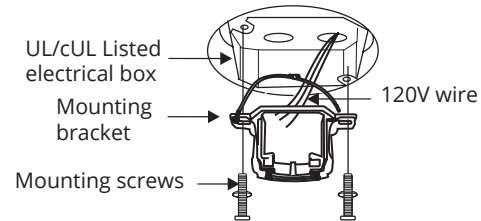


FIGURE 7

7. ASSEMBLING THE FAN BLADES

1. Assemble the three blades together using the blade collector ring and the screws provided (Fig. 8 & 9).

8. ATTACHING THE MOTOR

1. Attach blade assembly to the motor assembly as shown with provided blade screws (Fig. 10).

FIGURE 8

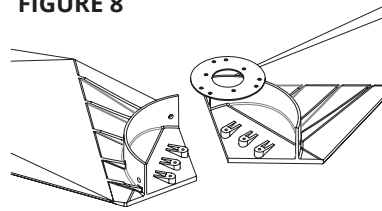


FIGURE 9

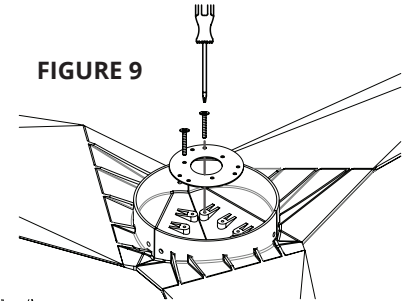
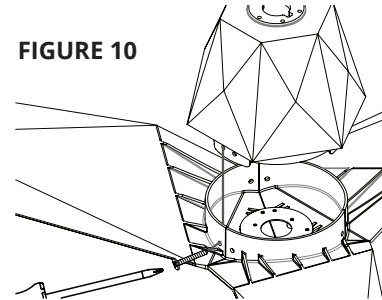


FIGURE 10



9. HANGING THE FAN

1. Remove the clevis pin and cotter pin and loosen the two collar screws from the motor collar (Fig.11).
2. Feed motor wires through coupling cover, canopy ring, and canopy
3. Feed motor wires through downrod assembly.
4. Thread the downrod assembly onto motor collar. Align the holes of down- rod and collar and insert the cotter pin and clevis pin. Tighten the two collar screws (Fig. 11).

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

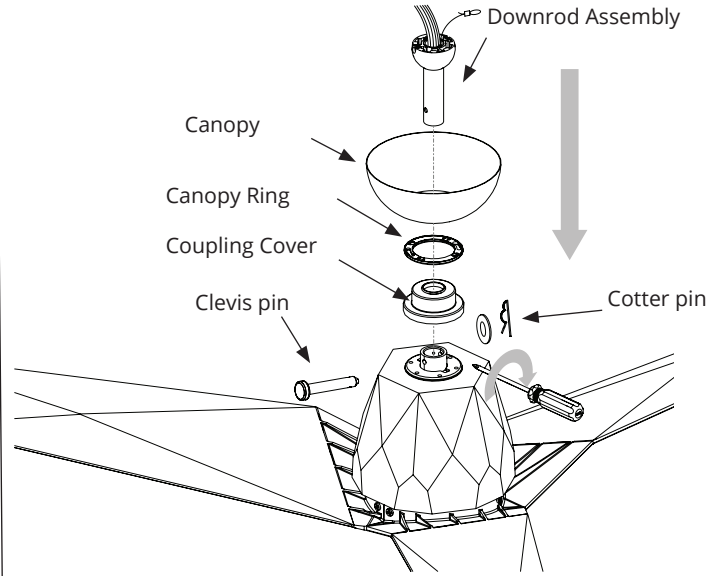


FIGURE 11

9. 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. 12).
2. Secure the safety cable to the building structure using a spring washer, flat washer and wood screw provided (Fig. 13).

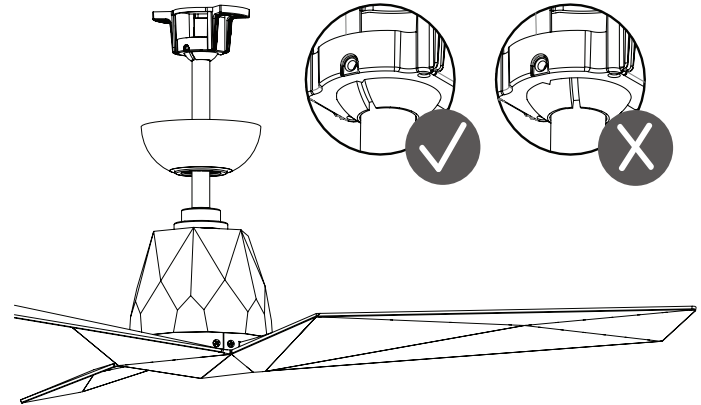


FIGURE 12

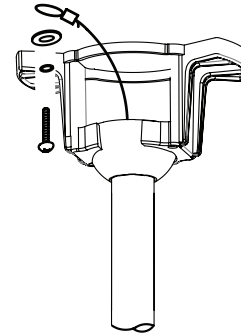


FIGURE 13

10. MAKING THE ELECTRICAL CONNECTIONS

REMEMBER to disconnect the power by removing fuses or turning off circuit breakers.

Follow the steps below to hang your fan properly:

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) which should run between 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 12)

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.

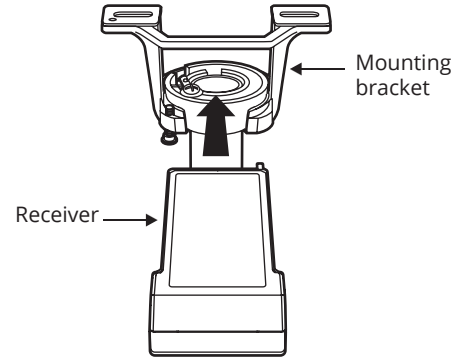


FIGURE 14

10. MAKING THE ELECTRIC CONNECTIONS (cont.)

Motor to receiver electrical connections: (Fig. 15)

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. Cap the white wire marked "for light" from the receiver with a blue wire nut,
6. Cap the blue wire marked "for light" from the receiver with a blue wire nut.

Receiver to house supply wires electrical connections: (Fig. 15)

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.

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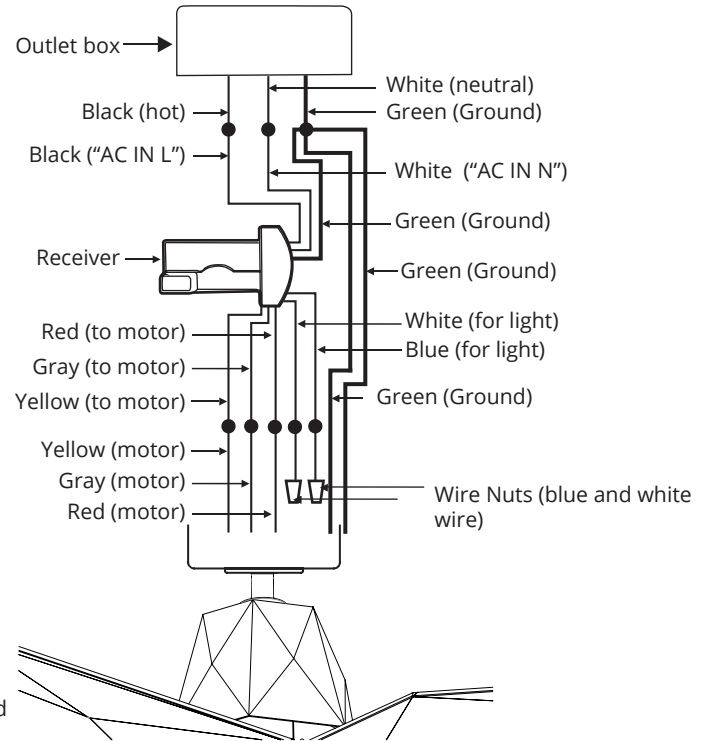


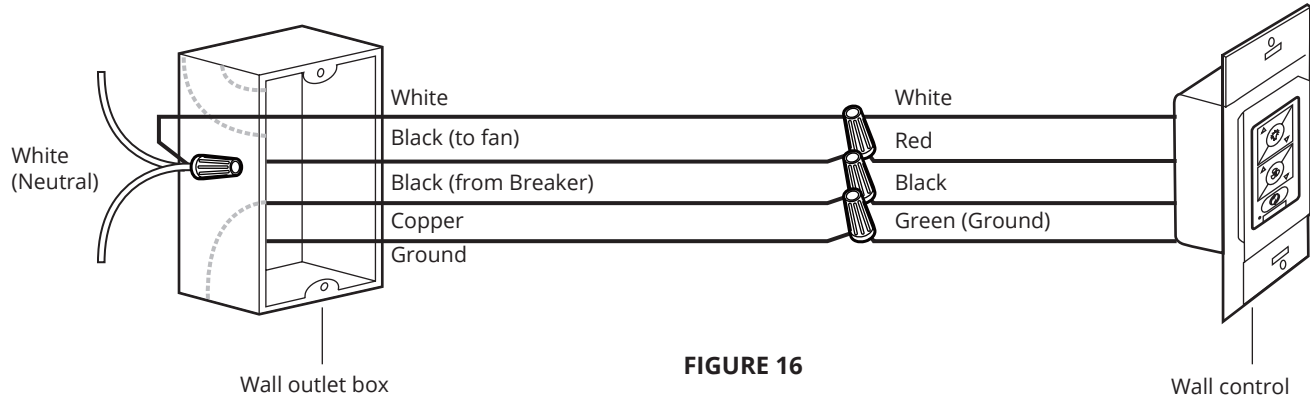
FIGURE 15

11. 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.



11. 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. 15)
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: 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 (with out the wall control in the circuit).

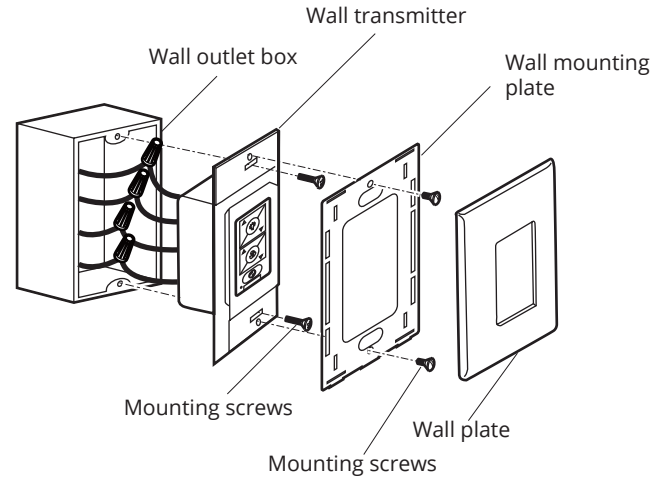


FIGURE 17

12. 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. 18).
4. Align the circular hole on canopy with the remaining hole on the hanger bracket. Secure by tightening the one screw previously loosened and the one screw previously removed.
5. Lock the canopy ring onto the screws in step 4. Adjust the screws as necessary until the canopy and canopy ring is snug (Fig. 18).

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

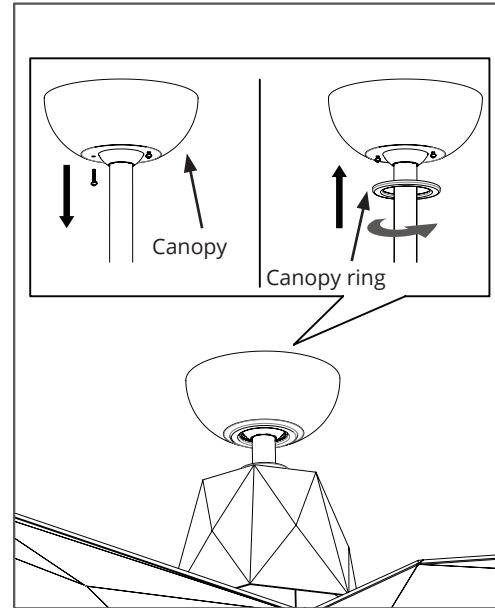


FIGURE 18

13. 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 ∇ 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 ∇ 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.

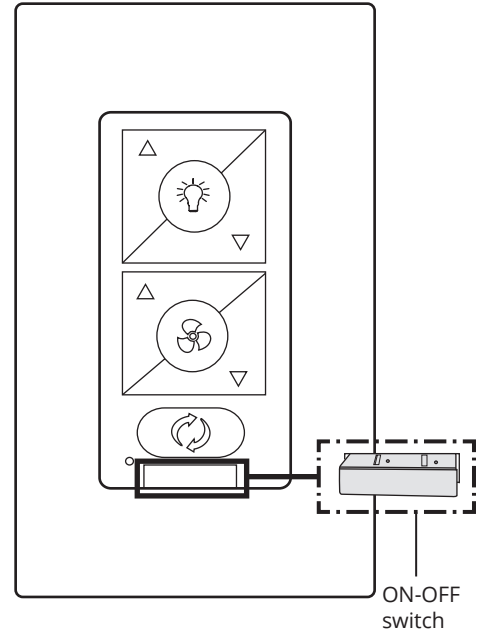


FIGURE 19

13. WALL CONTROL OPERATING INSTRUCTIONS (cont.)

NOTE: Maximum of 2 fans can operate on a circuit through the wall transmitter.

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. 21. 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. 22. 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.

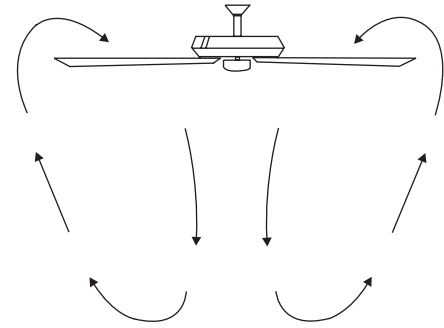


FIGURE 20

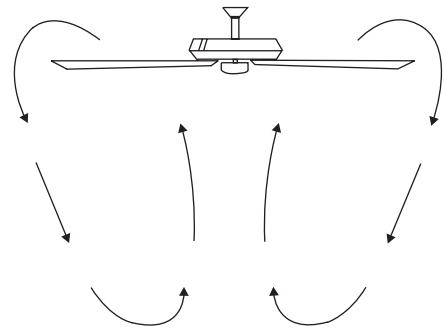


FIGURE 21

14. 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: Maximum of 2 fans can operate on a circuit through the wall control.

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).

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FIGURE 22

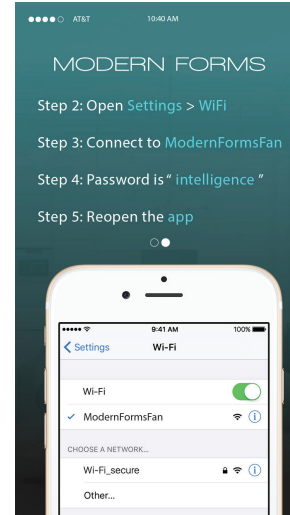


FIGURE 23







APP INSTRUCTIONS AND SMART HOME DEVICE INTEGRATION
modernforms.com/mfapps


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15. TROUBLESHOOTING

| Problem | Solution |
|---------------------|---|
| Fan will not start. | <ol style="list-style-type: none">1. Check circuit fuses or breakers.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.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).4. Assure that the fan is within range of the Wifi (150 ft.) or wall control (30 ft.). |
| Fan sounds noisy. | <ol style="list-style-type: none">1. Allow a 24-hour “breaking-in” period. Most noise associated with a new fan will disappear during this time.2. Make sure all motor housing screws are securely fastened.3. Make sure the screws that attach the fan blade to the fan are tight.4. Make sure your ceiling box is secure and rubber isolator pads are used between the mounting bracket and outlet box. |
| Fan wobbles. | <ol style="list-style-type: none">1. Check that all blade and blade arm screws are secure.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. |

16. ACCESSORIES

| PRODUCT | MODEL | DESCRIPTION | FINISH |
|---|--------|--|--|
| WIFI TOUCH PANEL WALL CONTROL  | F-TS | Full app control Wi-Fi range: Up to 150ft from router Sold Separately | BK, WT |
| RF WALL CONTROL  | 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 |
| COUPLER  | XF-I | Connects two downrods | AS, BZ, CFI, DW, GB, GH, GW, LN, MB, MW, OB, SS, TT |
| SLOPE CEILING KIT  | 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

Français

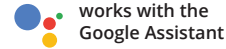
For instructions in French please visit the link below.
Pour obtenir des instructions en français, veuillez visiter le lien ci-dessous.

www.modernforms.com/fan-instructions-francais

MODERN FORMS LUMINAIRES + SMART FANS

Get Smart

The Modern Forms app synchronizes seamlessly with smart home devices you already own.
To learn more go to modernforms.com/mfappins



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.



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