

MODERN FORMS SMART FANS

HYDRA

FR-W1805-80L; FR-W1805-96L;
FR-W1805-120L

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/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



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 50 lbs (22.7 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. Avoid placing 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 with the supplied wall control, or controlled from the Modern Forms app or wall panel.

WARNING: To reduce the risk of personal injury, do not bend the blade arms (also referred to as flanges), 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 or personal injury, 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.” 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).

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

2. FTC ENERGY GUIDE & SPECIFICATIONS

FAN	FAN SIZE	VOLTS	N.W (lbs)	G.W (lbs)	STANDARD	ELECTRICITY	AIR FLOW	ENERGY COSTS*	FAN EFFICACY
Hydra	80"	120	38.92	45.33	High Speed	48W	12428 CFM	\$13/yr	261.1 CFM/W
					Weighted Average	29W	8398 CFM	\$8/yr	290 CFM/W

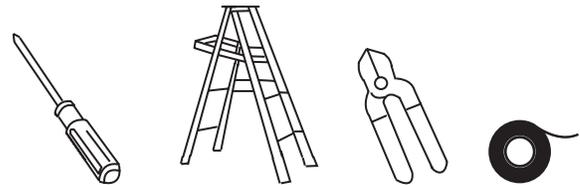
FAN	FAN SIZE	VOLTS	N.W (lbs)	G.W (lbs)	STANDARD	ELECTRICITY	AIR FLOW	ENERGY COSTS*	FAN EFFICACY
Hydra	96"	120	41.5	48.07	High Speed	45W	12950 CFM	\$13/yr	287.8 CFM/W
					Weighted Average	26W	9125 CFM	\$7/yr	351 CFM/W

FAN	FAN SIZE	VOLTS	N.W (lbs)	G.W (lbs)	STANDARD	ELECTRICITY	AIR FLOW	ENERGY COSTS*	FAN EFFICACY
Hydra	120"	120	45.95	52.74	High Speed	44W	13300 CFM	\$12/yr	302.3 CFM/W
					Weighted Average	26W	9898 CFM	\$7/yr	388 CFM/W

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

3. TOOLS AND MATERIALS REQUIRED

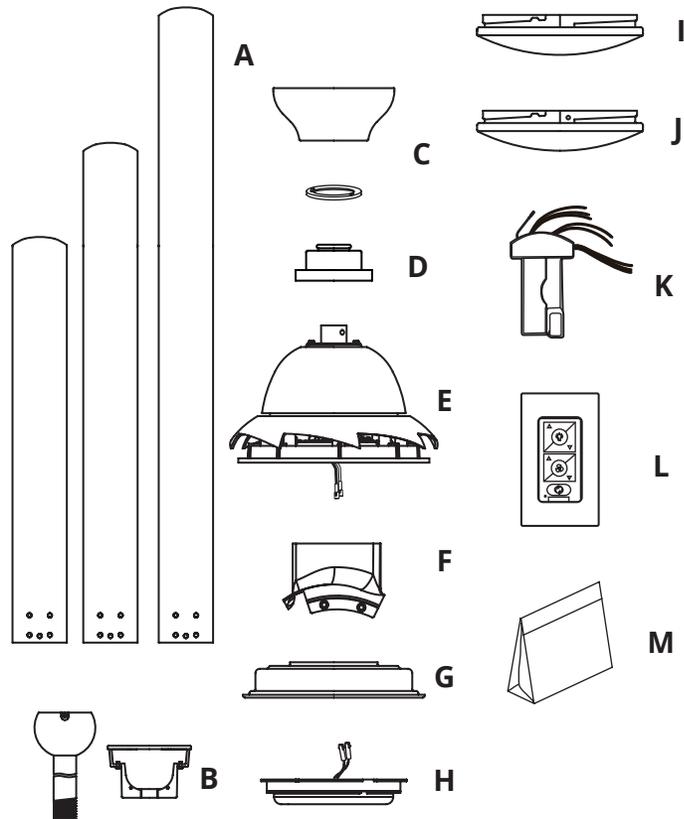
- **Phillips screwdriver**
- **Step ladder**
- **Wire cutters**
- **Electrical tape**



4. PACKAGE CONTENTS

REF.	DESCRIPTION	PART NO.
A	Blade Set of 8 (80")	RPL-F1805-80-BD-**
	Blade Set of 8 (96")	RPL-F1805-96-BD-**
	Blade Set of 8 (120")	RPL-F1805-120-BD-**
B	Hanger Assembly	RPL-F1805-HGR-**
	Mounting Bracket	
	- Downrod Assembly	
C	Canopy & Canopy screw cover	RPL-F1805-CAN-**
D	Coupling Cover	RPL-COU-CVR-**
E	Motor Assembly	---
F	Blade Arm Set of 8	
G	Adapter Plate	
H	LED Module	F6IN-120V-R1-30
I	Glass Shade	RPL-F1805-GLA
J	Luminaire Cover	---
K	Control Receiver W/Hardware (80")	RPL-F1805-80-REC
	Control Receiver W/Hardware (96")	RPL-F1805-96-REC
	Control Receiver W/Hardware (120")	RPL-F1805-120-REC
L	Wall Control W/Hardware	F-WC-WT
M	Hardware Bag	RPL-HYDRA-PARTS
	wood screws (2), screws (2),	
	5/32" lock washers (2), flat washers (2), 5.4mm lock washers (2)	
	5/32" lock washers (2), flat washers (2),	
	W/ Blade Attachment Hardware	
	screws with flat washers and rubber washers (41)	

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



NOTE: ** denotes finish code of fan
FR-W1805

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 50 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)

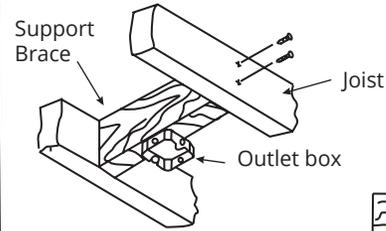


FIGURE 1

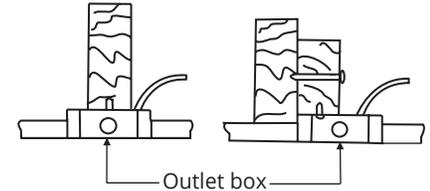


FIGURE 2

SLOPED CEILING MAX 30° ANGLE

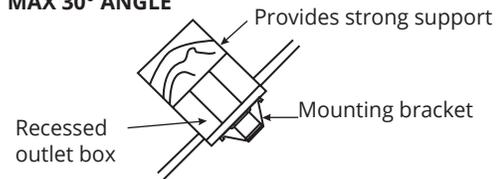


FIGURE 3

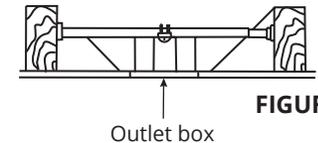


FIGURE 4

6. HANGING THE FAN

REMEMBER to turn off power at the breaker.

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 9. Loosen the other screw. (Fig. 6)
3. Unscrew the four mounting neck screws to separate the mounting bracket from the mounting neck. (Fig. 7)
4. Remove stop valve from the neck of the mounting bracket by loosening the two stop bracket screws on the neck of the mounting bracket in 1/4" from the screw head.

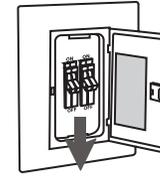


FIGURE 5

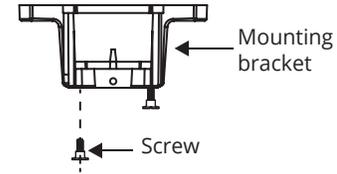


FIGURE 6

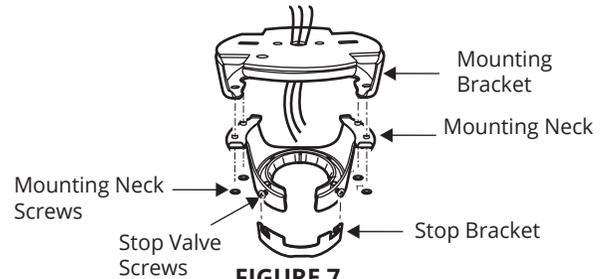


FIGURE 7

6. HANGING THE FAN (cont.)

1. Take out the set screw located in the hanger ball, lower the hanger ball and remove the cross pin. Remove the hanger ball from the hanger ball/downrod assembly. (Fig. 8)
2. Remove the clevis pin and cotter pin, and loosen the two collar screws from the motor collar. (Fig. 9)
3. Carefully feed the motor wires and safety cable up through the downrod. Thread the downrod into the collar. (Fig. 9)
4. Align the holes of downrod and collar and insert the cotter pin and clevis pin. Tighten the two collar screws. (Fig. 9)

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

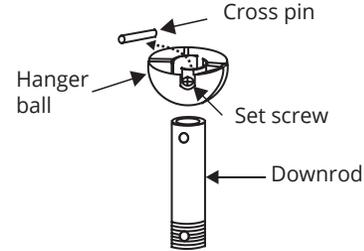


FIGURE 8

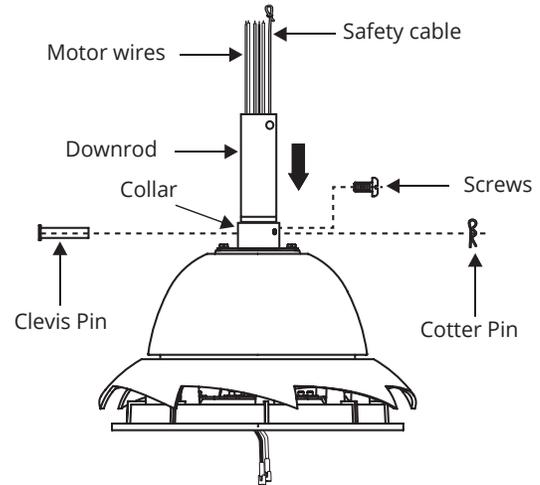


FIGURE 9

6. HANGING THE FAN (cont.)

1. Slip the coupling cover, canopy screw cover (painted side face down), and canopy (opened side up) onto the downrod. (Fig. 10). Coupling cover goes all the way to the bottom.
2. Carefully reinstall the hanger ball onto the downrod, being sure that the cross pin is in the correct position, the setscrew is tightened and wires are not twisted. (Fig. 10)

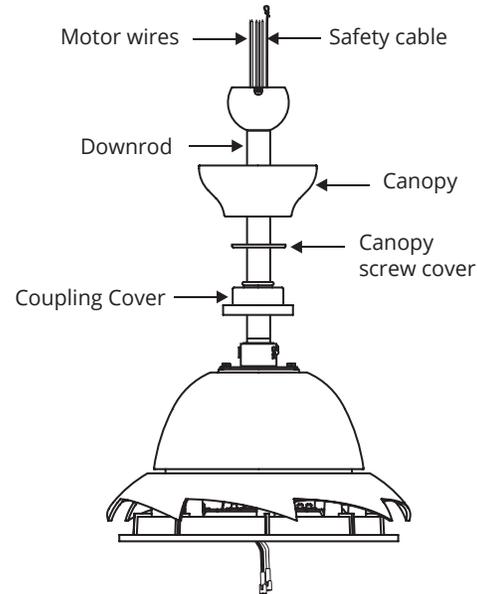


FIGURE 10

6. HANGING THE FAN (cont.)

1. Pass the 120-volt supply wires through the center hole in the ceiling mounting bracket as shown in Fig. 11.
2. Secure the mounting bracket to the ceiling outlet box with the screws and washers provided with your outlet box. (Fig. 11)
3. Attach mounting neck onto the mounting bracket. Rotate the mounting neck to align the four screw holes. Secure mounting neck to the mounting bracket with four mounting neck screws to become a complete mounting bracket. (Fig. 11)
4. Carefully lift the fan motor assembly up to the mounting bracket and seat the hanger ball in the mounting bracket. Rotate the socket assembly until the ball drops and locks into the hanger bracket screw. (Fig. 12)
5. Secure the safety cable to the building structure using a wood screw (not included). (Fig. 12)
6. Secure the stop valve onto mounting bracket by tightening two stop valve screw to close up the opening of mounting bracket. (Fig. 12)

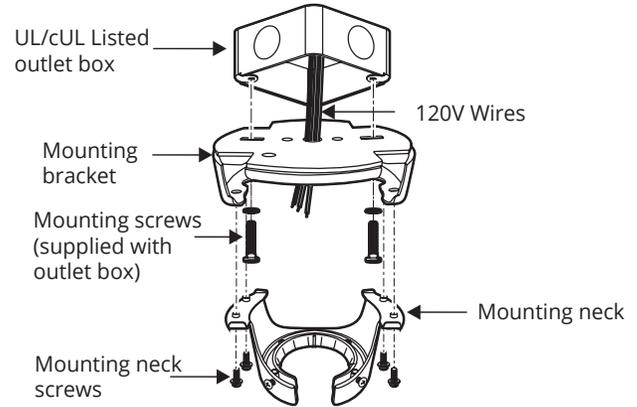


FIGURE 11

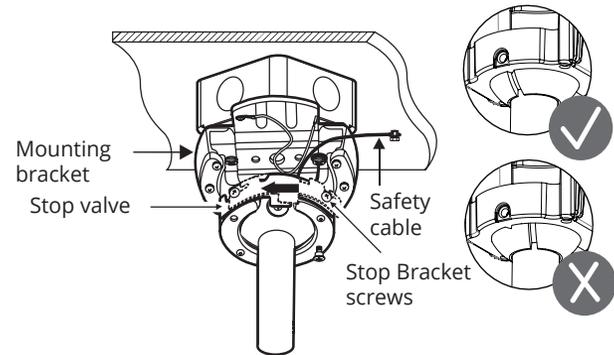


FIGURE 12

7. 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) 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. 13)

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

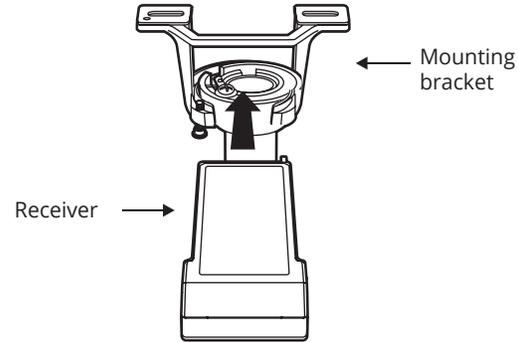


FIGURE 13

7. MAKING THE ELECTRICAL CONNECTIONS (cont.)

Motor to receiver electrical connections: (Fig. 14)

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 blue wire from the fan to the blue wire marked "For Light" from the receiver.

Receiver to house supply wires electrical connections: (Fig. 14)

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.

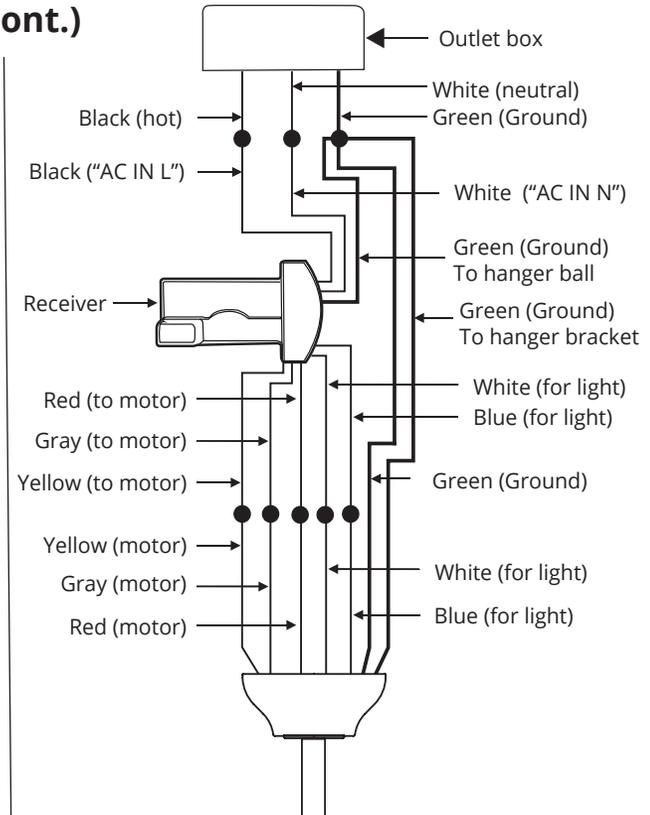


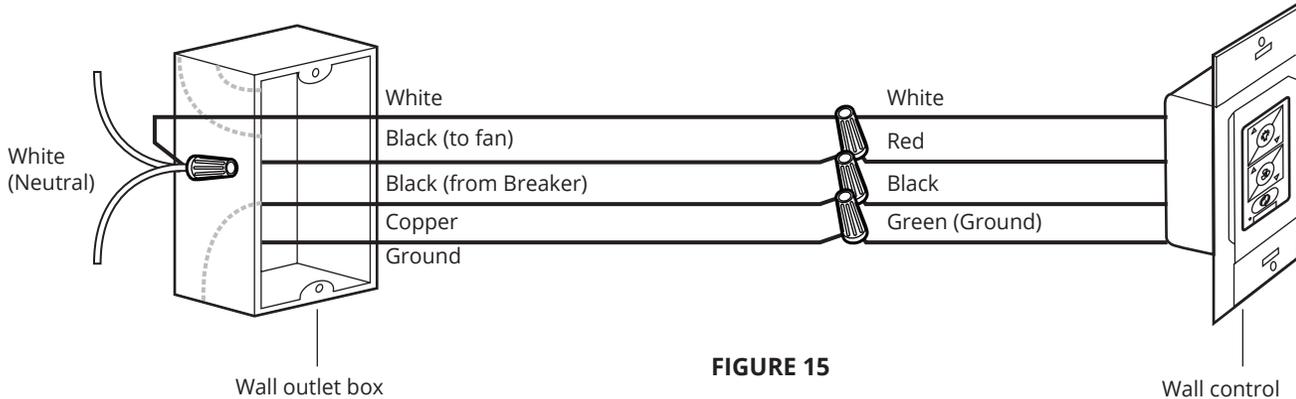
FIGURE 14

8. INSTALLING THE WALL CONTROL

Wall control to wall outlet box electrical connections: (Fig. 15)

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

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.



8. 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. 16)
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.

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).

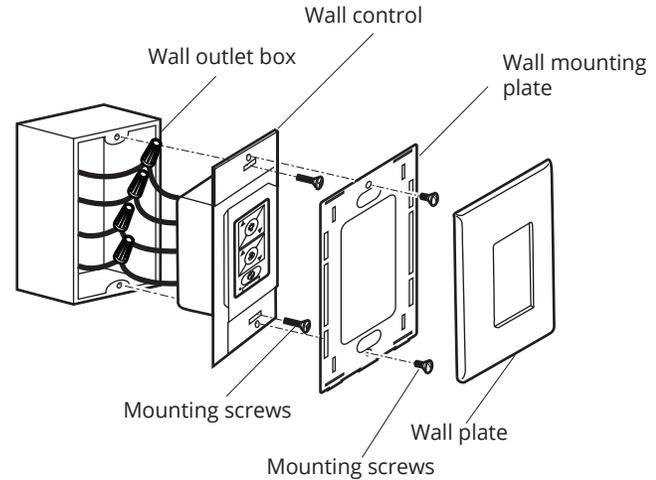


FIGURE 16

9. 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 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. 17)
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 previously removed.
5. Adjust the canopy screws as necessary until the canopy and canopy cover are snug.

WARNING: Make sure tab at bottom of 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.

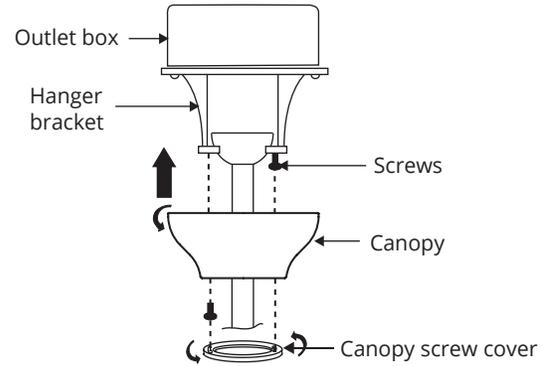
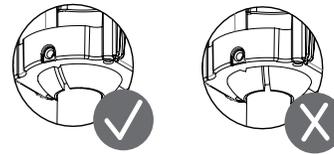


FIGURE 17



10. ATTACHING THE FAN BLADES

1. Attach the blade to the blade arm using the screws with flat washers and rubber washers as shown in Fig. 18.
2. Fasten blade assembly to motor using the screws supplied. (Fig. 18)

11. INSTALLING THE ADAPTER PLATE

1. Remove one of the three screws from the mounting ring and loosen the other two screws. (Do not remove.)
2. Place the key holes in the adapter plate over the two screws previously loosened from the mounting ring. Turn the adapter plate until the adapter plate locks in place at the narrow section of the key holes. (Fig. 19)
3. Tighten the two mounting ring screws previously loosened and the one previously removed to secure adapter plate.

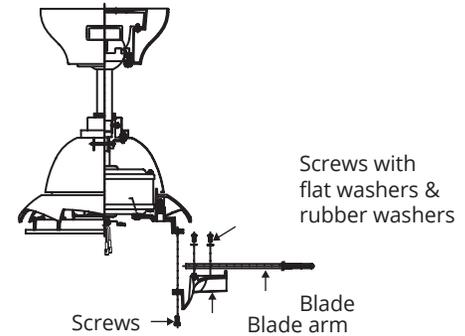


FIGURE 18

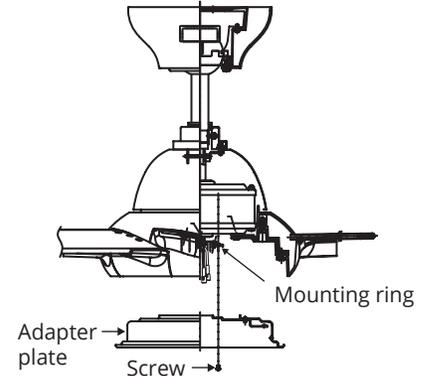


FIGURE 19

12. 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. Turning power off using the fan switch is not sufficient to prevent electric shock.

NOTE: If you do not plan to install the luminaire module with your fan at this time, skip to step 5.

1. Remove 1 of the 3 screws from the outer perimeter of the adapter plate and keep it for future use. Loosen the other 2 screws (Do not remove)
2. 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. 20)
3. Tuck connections neatly into adapter plate. Place the luminaire module key holes over the 2 screws previously loosened from the mounting ring, turn luminaire module until it locks in place at the narrow section of the key holes. Secure by tightening the 2 screws previously loosened and the one previously removed. (Fig. 20)
4. Raise glass shade up against the luminaire module, and secure it to fan by turning glass clockwise until snug. Do not over-tighten.

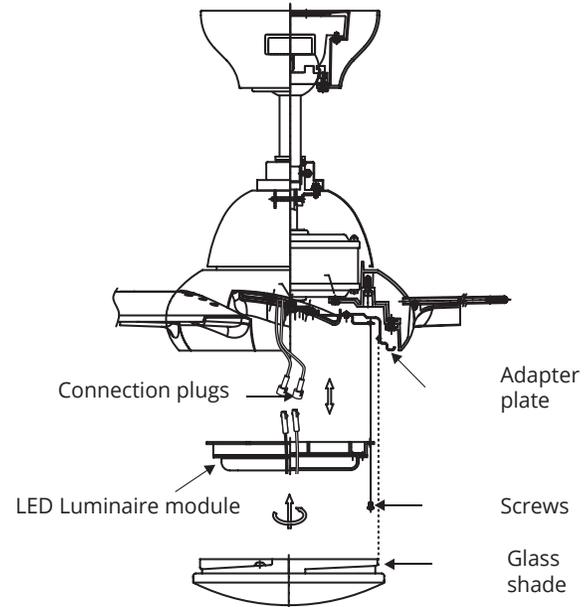


FIGURE 20

INSTALLING THE LED LUMINAIRE MODULE (cont.)

5. If installing the optional metal light cover, make sure it is securely tightened. (Fig. 21)

NOTE: Add metal light cover if you do not need lighting function or prefer a different aesthetic. (Fig. 21)

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

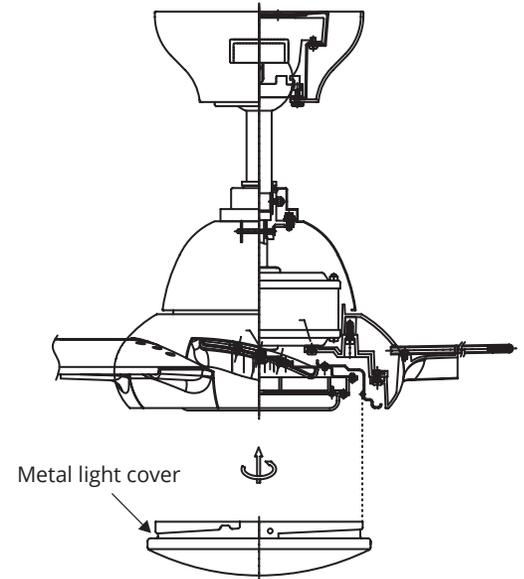


FIGURE 21

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.

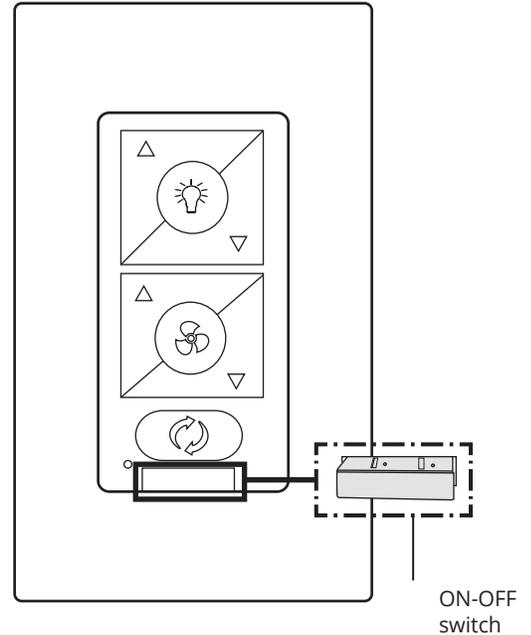


FIGURE 22

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. 23. 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. 24. 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.

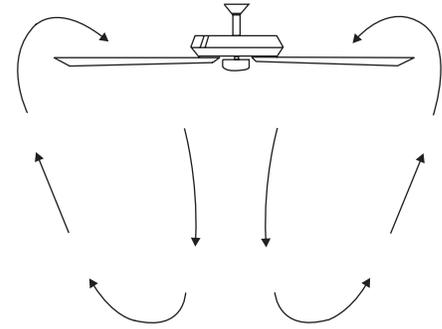


FIGURE 23

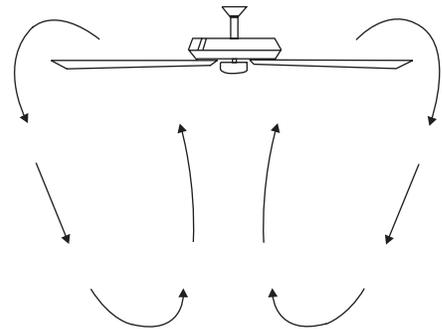


FIGURE 24

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).

FR-W1805

FIGURE 25



FIGURE 26



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

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15. TROUBLESHOOTING

Problem

Solution

Fan will not start.

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.

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.

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	

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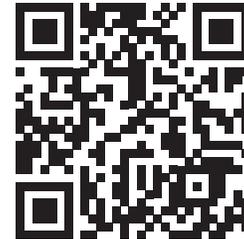
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