

DO NOT THROW AWAY! SERIAL NUMBER FOR FAN IS LOCATED ON BACK COVER OF OWNER'S GUIDE. RETAIN IN A SAFE PLACE.

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## **GENERAL SAFETY INSTRUCTIONS**

- **1. Read Instructions** All safety and operation instructions must be read. Failure to read and follow instructions as stated in this guide may void applicable warranty.
- **2. Retain Instructions** The safety and operating instructions should be kept for future reference.
- **3.** Heed Warnings All warnings should be followed.
- 4. Follow Instructions All installation and operating instructions should be followed.
- 5. Heat The QuietCool system should be situated away from heat sources.
- **6. Damage Requiring Service** Only qualified service personnel should service the QuietCool system. The user should not attempt to service the product.
- 7. Building Codes Always follow Local Building Codes when installing appliances

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QuietCoolSystems.com

#### 1.1 INTRODUCTION

### Congratulations on the purchase of your new QuietCool Specialty Series Fan!

The **QuietCool** Specialty Series was designed for every application imaginable. QuietCool Specialty Series fans dominate the market in energy efficiency. Our Specialty Series works great in practically all climate zones and most homes, mobile homes, and even warehouse buildings!

The QuietCool Garage Fans offer great ventilation options for your garage, man cave, or workshop. We offer the GA ES-1500 to ventilate both your garage and attic.

And now, the GA ES-1500 is even easier to install with the included Wireless RF Control Kit! Included in the box is the brand new Wireless RF Control Kit that allows you to turn on your GA ES-1500 from anywhere in your home, and set it on a timer for up to 12 hours!

#### 1.2 Series Features

- High Efficiency Design
- Designed and Built in California

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- 15 Year Warranty
- Garage Fans (GA ES-1500 shown right)
- Included Wireless RF Control Kit
- Control your QuietCool from anywhere in your home
- Set countdown time (up to 12 hours)

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• Surface mount wall switch that can be removed and used from anywhere in the home



#### 1.3 Key Specifications

## IT-RFHUB-O1 (RF Hub): Voltage: 120V Frequency: 60Hz Motor load: 1HP, 735W (Max)

#### IT-RFSWITCH-01 (RF Switch):

Voltage: 3VDC (2 AAA batteries) Battery Standby Current: ≤10uA RF working distance: 100ft (no obstructions)

#### 1.4 System Venting Requirements



## VERY IMPORTANT! - 1 SQUARE FOOT OF NET FREE VENT AREA PER 750 CFM RECOMMENDED! - 2 TO 4 SQUARE FEET OF INLET VENTS PER FAN

Venting plays a very significant role in the performance of QuietCool fans. QuietCool recommends a minimum of 1 SQ. FT. of venting for every 750 CFM in the QuietCool system. If an attic has at least 1:750 attic venting, the QuietCool system will operate efficiently and effectively. If an attic has less than 1:750 attic venting, the system may not operate as efficiently, or effectively, as it could with 1:750 attic venting. But don't worry, the system will still operate if there is not enough venting.

Insufficient venting is a very simple problem to fix. Roofing contractors can add extra venting to most homes simply and easily. The most common types of venting is shown in the chart below.

Vent Type	Model Type	Average Size	Venting Sq. Ft.
Gable vent		12" × 19.5"	1.20
Dormer Vent		14" × 8"	0.70
Eave Vent		4" 5" 6"	0.03 0.04 0.07
Ridge Vent		4' - 12'	0.125 per ft
Soffit Vent	1111 March	16" x 4" 16" x 6" 16" x 8"	0.19 0.29 0.39
O'Hagin Vent		Low/Medium Profile Tapered Low Profile Low Profile Flat High Profile	0.5 0.6 0.68 0.68
Turbine Vent		8" 12" 14"	.35 .79 1.1

\*Note: This table is only a guideline and is not a guarantee of venting capacity.

## **2. INSTALLATION**

#### 2.1 Installing GA (Garage Attic) model fans



# VERY IMPORTANT: MINIMUM OF 26" CLEARANCE REQUIRED ABOVE CEILING FOR INSTALLATION OF GA MODEL FANS. ALWAYS FOLLOW LOCAL BUILDING CODES.

- Determine in which area you would like to install your QuietCool Garage Attic Fan. Now it's time to find the exact location using a stud finder or by going up into the attic and finding the location. Locate the ceiling studs and mark the location for the fan to be installed. (see Figure 2.1A) One side of the cut out should be directly next to a wood member for proper fan mounting and support. NOTE: You will need to remove the ceiling flange from the side of the fan that will be mounted against the wood member.
- **2.** When you find the location, mark a 14 1/4" square using a framing square or template. Make sure you have 2" of clearance all the way around it. The grille that will be installed later is a 16" square. **(see Figure 2.1B)**
- **3.** Starting at one corner of the square using a drywall saw, cut out the opening. Remove the drywall cutout and clear away insulation (if applicable). **(see Figure 2.1C)**
- Take the GA fan model into the attic and place it over the ceiling cut out. (see Figure 2.1D)
  NOTE: This can be done through the attic access. If you don't have an attic access, you will need to remove the ceiling flanges to fit the fan directly through the ceiling cutout.
- Attach the fan using screws into the ceiling joists. (see Figure 2.1E). Install the ceiling grille. (see Figure 2.1F)





Figure 2.1D



Figure 2.1B



Figure 2.1E



Figure 2.1C



Figure 2.1F





VERY IMPORTANT: CHECK TO MAKE SURE FAN BLADE SPINS FREELY AND THE FIRE DAMPER CLOSES EASILY. MAKE SURE TO SECURE THE LATCH IN THE OPEN POSITION (AS SHOWN IN FIGURE 2.1D)



AVOID BACKDRAFTS: MAKE SURE THE GARAGE FAN WILL NOT BACKDRAFT COMBUSTION APPLIANCES IN THE GARAGE. QUIETCOOL GARAGE FANS MOVE LARGE QUANTITIES OF AIR.

## **3. SETTING UP THE WIRELESS CONTROL**



NOTE: Wiring Diagrams are for examples ONLY. Wiring should be done by an experienced electrician.



NOTE: Your fan may have come with the control pre-wired to a power cord. If this is the case, simply mount the control box, find a power source in your attic, and plug the fan in. If you would like to hard-wire the fan, or it is required by your local building codes, please follow the wiring instructions below.

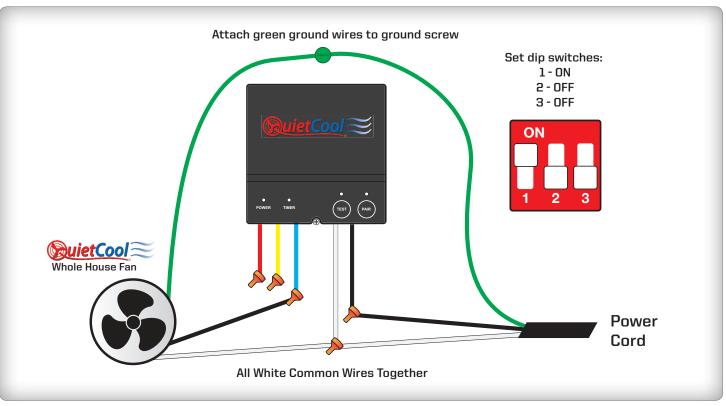
#### 3.1 Wireless RF Control Kit Wiring

Your fan came pre-wired with the Wireless RF Control Kit. Simply mount the box onto a joist in your attic and plug in the fan.

However, if your local building codes require you to hardwire your fan, simply remove the power cord and follow the wiring instructions below.

- **1.** Using a wire nut, connect the black wire from your two wire romex to the black wire from the Hub.
- **2.** Connect the white wire from your two wire romex and the white wire on the fan to the white wire from the Hub.
- 3. Connect the black wire from the fan to the blue wire on the Hub
- **4.** Cap the yellow and red wires from the Hub.
- **5.** Ground the green wire from the fan and the green wire from your two wire romex to the ground screw in the Hub.
- **6.** Set the dip switch positions inside the Hub as shown in the diagram below.
- 7. Power-on the Hub. The Power LED indicator will be lit.





- **8.** Press the Test button to make sure the fan works. The Test LED indicator will blink once every two seconds indicating 1-speed and the fan will be on. Press the Test button again and the fan should shut off and the LED will be off.
- **9.** If the fan doesn't operate as described in step 8, please check the dip switch postion.

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#### 3.2 Fan Hub LED Indicators

#### **Power Indicator**

- The Power LED indicator will always be lit when the Hub is connected to Power.
- If this LED is not lit, check the power source

#### **Timer Indicator**

- The Timer LED indicator will light up as shown below:
  - **1.** 1 Hour: 1 Blink
  - 2. 2 Hours: 2 Blinks
  - **3.** 4 Hours: 4 Blinks
  - 4. 8 Hours: 8 Blinks
  - 5. 12 Hours: 12 Blinks
  - 6. Continuous On: Off

#### **Test Indicator**

- The Test LED indicator will light up as shown below when the Test button is pressed and when the fan is turned on via the Wall Switch:
  - **1.** One Speed Fan: blink once every 2 seconds
  - 2. Two Speed Fan: blink twice every 2 seconds
  - 3. Three Speed Fan: blink three times every 2 seconds

#### Pair Indicator

• The Pair LED indicator will light up when making pair operations. Please see page 12 for details on pairing.

#### Notes on Operation

• If the Dip Switch is not configured correctly, all the indicators on the Hub will stay solid when the Hub is powered on. Please switch off power and re-configure the Dip Switch as shown in the wiring diagrams.



#### 3.3 Pairing the Wall Switch

- 1. Using a flat-head screwdriver, remove the front cover off the wall switch.
- **2.** Install the included AAA batteries into the switch. All the LED indicators will light up indicating that the switch has power. Replace the front cover.
- **3.** Press and hold the Pair button on the Hub. The Pair LED indicator will be on for three seconds then turn off. This clears all previous pairings out of the Hub,
- **4.** Press the Pair button on the Hub twice. The Pair LED indicator will blink once every second indicating the Hub is in pairing mode.
- 5. Press either one of the buttons on the Wall Switch to wake it up. Now hold one of the buttons on the switch. The Pair LED indicator on the Hub will go out and the Wall Switch speed indicators will be blinking indicating successful pairing. Press the Wall Switch button again, the speed indicators will go out, and it will display the current fan status.
- **6.** Press the Timer button to test the Wall Switch to make sure it is communicating with the Hub.



NOTE: If a button on the Wall Switch is not pressed within three minutes of pressing the Pair button on the Hub, the LED indicator on the Hub will go out, indicating unsuccessful pairing. You will need to go back and repeat steps 4 and 5.

#### 3.4 Finding a Location for the Wall Switch

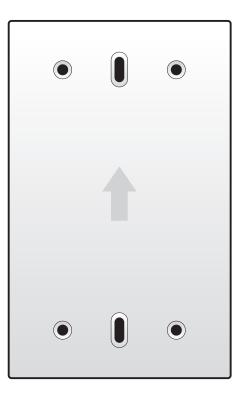
- **1.** It is very important to find the correct location to install the Wall Switch that will allow the Wall Switch to communicate with the Hub.
- **2.** Find the location you would like to install the Wall Switch and test that it properly communicates with the fan to turn the fan on and off.
- **3.** If the fan comes on, this is a good location.
- **4.** If all the LED indicators turn on, the Wall Switch is not communicating with the Hub and you will need to find a location closer to the fan.

#### 3.5 Installing the Wall Switch

**1.** Using your hands, slide the Wall Switch off the mounting plate.

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- 2. If you have an existing Wall Switch with a junction box installed, install the mounting plate over the junction box using the oblong holes on the mounting plate. Make sure you install the mounting plate with the arrow facing upwards.
- **3.** If you do not have an existing junction box, simply install the mounting plate to the drywall. Using the included drywall anchors and screws, mount the plate onto the drywall through the four mounting holes.



## **4. OPERATION**

## 4.1 Operating the Wall Switch

#### **Timer Button**

- The top button on the switch controls the Timer functionality of the fan.
- This button must be pressed for the fan to turn on.
- Button Presses:

One Press: 1 Hour Two Presses: 2 Hour Three Presses: 4 Hours Four Presses: 8 Hours Five Presses: 12 Hours Six Presses: Continuous On Seven Presses: Off

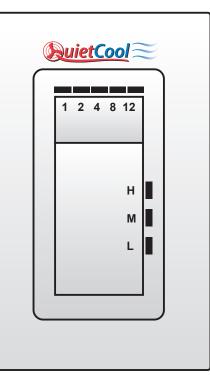
#### **Speed Button**

• The bottom button on the switch controls the speed functionality of the fan.

#### Two Speed Fan

#### Three Speed Fan

- One Speed FanFirst press: ON
- First press: HIGHSecond press: LOW
- First press: HIGH
- Second press: MED
- Third press: Low



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#### Wall Switch Sleep Mode

- If no button press is detected for 10 seconds, the Wall Switch will enter sleep mode. Pressing either button will wake the switch and display the current status.
- In Sleep Mode, all LED indicators will be off.

#### LED Status Indicators of Wall Switch

- If all LED indicators on the Wall Switch come on after three seconds of pressing one of the buttons, this means the Wall Switch is failing to connect to the Hub. You will need to move the switch closer to the Hub to ensure proper communication.
- If all the Timer LED indicators are off and one of the Speed LED indicators are on, this means you have not set the time for the fan to run and the fan will not operate. Simply press the Timer button to turn the fan on and set the fan runtime.
- If only one of the Timer LED indicators is on and only one of the Speed LED indicators is on, the fan is running at the indicated speed and timer level.
- If all the Timer LED indicators are on and only one of the Speed LED indicators are on, the fan is running in Continuous On mode at the indicated speed level. The fan will continue to run until you press the Timer button to turn it off.

#### Notes on Operation

• In order for the fan to run, a Timer selection MUST be made. When the Timer status is off (no LED indicators lit), you can still change the Speed setting. The Speed setting will take effect once the Timer selection is made.

#### 4.2 Frequently Asked Questions

#### What does RF Mean?

"RF" Stands for Radio Frequency.

#### How does RF Work?

A small electronic device is used to transmit and/or receive radio signals between two devices. In an embedded system, it often communicates with another device wirelessly. This wireless communication may be accomplished through optical communication or through radio frequency (RF) communication.

#### Will RF Interfere with other devices in my home?

The RF will not interfere with other wireless or RF devices in your house. It produces its own unique RF signal that can only communicate with our RF Switch.

#### How many switches can you connect to a single hub?

You can connect up to 20 switches to a single hub.

#### Will my neighbor be able to control my fan if they have the same set up as me?

They will not because you need to physically activate the pairing process between the RF Switch and the RF Hub.

#### What is the range?

The RF Switch and RF Hub have a range restriction of 100ft.

#### What happens if I lose the RF Switch?

If you lose or damage an RF Switch you will need to purchase another and re-pair the new one to the RF Hub.

#### Can you control multiple fans with a single switch?

No. You can only control one RF Hub per switch.

#### How long do the batteries last?

One year.

#### Why are all my lights solid on the hub and nothing is working?

If you're experiencing solid lights on the hub then it is an indication that your DIP switches are not in the correct position. Disconnect power, adjust your DIP switches, and the only light that should be lit is your RED power light.

#### Why is there a medium speed if my fan is only a two speed?

The RF Hub and RF Switch are universal to all QuietCool models. There are some units that feature three speeds which use the medium on the switch. As long as your DIP switch is set correctly in the hub, the switch will automatically skip over medium speed.

#### How do I change the DIP switch to the correct speed of my fan?

You will need to disconnect power, make your adjustment inside the hub, and then reconnect power.

#### Can you connect the RF Control to a smart home system like Alexa, Google Home, or Apple HomeKit?

No, in the current configuration the RF Control cannot connect to a smart home system. There are systems on the market that take RF signal and translate them to a smart home system, but they have not been tested and may not work reliably.



**RF WIRELESS CONTROL LIMITED WARRANTY** 

QC Manufacturing Inc. extends this warranty to the original purchaser of the following -IT-RFHUB-01 and IT-RFSWITCH-01 - installed and used in a residence under normal conditions within the United States:

**A.** One year coverage applies to the product. At our option we will repair or replace any part of the assembly should it fail to operate during the first year from the date of original purchase.

B. This warranty does not cover any of the following:

- Accidental or consequential damage resulting from the operation of our equipment or any malfunction thereof.
- 2. Cost of service calls to diagnose the cause of problems or the labor charge to un-install any components.
- Product failure or damage due to faulty installation, abuse, misuse, unauthorized alteration to factory specs, lack of maintenance, or transportation damage.
- 4. Shipping or postage for warranty claims.

**C.** To obtain service under this warranty, first contact the dealer where you purchased the equipment. If you are unable to find or reach your dealer, contact Customer Service at QC Manufacturing, Inc. at the number below.

**D.** Registration is no longer required. If service is required under this warranty, you must retain your proof or purchase.

This warranty is the only warranty extended by QC Manufacturing, Inc. to purchasers or suppliers of our equipment. QC Manufacturing Inc. disclaims all other warranties, express or implied, that arise by operation of the law.

#### QC Manufacturing, Inc. Customer Service

43352 Business Park Dr. Temecula, CA 92590 www.QuietCoolSystems.com 951-325-6340

## **5. SYSTEM OPERATING INSTRUCTIONS**

#### 5.1 QuietCool Garage Fan (GA ES-1500)

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QuietCool Garage Fans work great to cool your garage, man cave, or workshop. Our two models work for different applications. Our GA ES-1500 works to cool and ventilate your garage and the attic above your garage. This greatly reduces the heat transfer between the attic and garage on really hot days. Run bthe fan when it is cooler outside than it is in your garage.

Don't let your garage get hot and worry about damage to your vehicles, motorcycles, boat, etc.; just install a QuietCool Garage Fan!

If you have any trouble installing or operating your new **QuietCool** Specialty Series Fan, please visit our website at <u>www.QuietCoolSystems.com</u> or call us at **951-325-6340** for support.

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	5	SPECIAL	TY SERIES FANS LIMITED WARRA
15 YEAR LIMITED			E15YEAR
QC Manufacturing Specialty Series Fa	ns AFG SMT-3.0, AFG	PRO-3.0, AFR SMT-2.0, G	rchaser of the following QuietCoo A ES-1500, GX ES-1100, RM ES-1100 ons within the United States:
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furnished by Q	Manufacturing Inc. At ou	r option we will repair or	ngs, controls and accessories replace any part which fails as a om the original date of purchase.
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Rev. 3/19/19

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## **Fan Serial Number Information**

Retain for your records. Serial number is required for warranty purposes.



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