QuietCool®
ADVANCED SOLAR ATTIC FANS

OWNER'S GUIDE

SOLAR ATTIC FANS



AFG SLR-40



AFR SLR-40

! DO NOT THROW AWAY!

SERIAL NUMBER FOR FAN IS LOCATED ON THE BACK COVER OF THE OWNER'S GUIDE.

LEAVE WITH HOMEOWNER

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WARNINGS

CAUTION: This unit has an unguarded impeller. Do not use in locations readily accessible to people or animals.

CAUTION: Do not operate any fan with a damaged cord or plug. Discard fan or return to an authorized service facility for examination and/or repair.

CAUTION: Do not run cord under carpeting. Do not cover cord with throw rugs, runners, or similar coverings. Do not route cord under furniture or appliances. Arrange cord away from traffic area and where it will not be tripped over.

CAUTION: Automatically started device. To reduce the risk of injury, disconnect from power supply before servicing. Do not use fan with any solid state speed control device. For residential use only.

QC MANUFACTURING, INC.
26040 YNEZ ROAD
TEMECULA, CA 92591

PHONE 1-888-QUIETCOOL
WEBSITE WWW.QUIETCOOLSYSTEMS.COM

15 YEAR WARRANTY





1. SYSTEM OVERVIEW

1.1 INTRODUCTION

CONGRATULATIONS

on the purchase of your new QuietCool Solar Attic Fan!

Solar attic fans work by using sunlight to power the fans motor to help prevent any heat or moisture build up in your attic. Your attic can reach temperatures of up to 150°F which can destroy the integrity of your home as well as completely destroy your roof because of the humidity and moisture build up.

Because of this, solar attic fans can prolong the life of your roof structure and air conditioning while even helping you to save up to 30% off A/C costs.

The best part of a QuietCool Solar Attic Fan is that an AC/DC Smart Inverter is included with the fan. This allows the fan to run during the day from the sunlight, and at nighttime using traditional electricity. This gives you the best of both worlds: free ventilation during the day and nighttime supercooling using the cooler outdoor air.





1.2 FEATURES

+ High Efficiency Design
+ Designed and Engineered in California
+ 15 Year Warranty
+ Built-in thermostat
+ Included AC/DC Smart Inverter
+ Adjustable high-precision mounting tabs

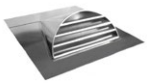
1.3 SYSTEM VENTING REQUIREMENTS

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″ x 19.5″	1.20
Dormer Vent		14″ x 8″	0.70
Eave Vent		4″ 5″ 6″	0.03 0.04 0.07
Ridge Vent		4′ - 12′	0.125 per ft
Soffit Vent		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 AFG SLR MODEL

Installation Video:
Watch the video by scanning the QR code or visit
www.QuietCoolSystems.com/support

NOTE: The AFG SLR model fans are designed to mount behind existing vents. If no vent exists, one must be installed. Vent should be installed in the upper center section of the gable.

NOTE: The mounting brackets for the AFG SLR model fans are on sliding rails. Simply loosen the 8 nuts on the 4 mounting brackets to slide the bracket into the proper position for your installation. (as shown in Figure 2.1A) The fan should be flush to the gable vent when installed.

NOTE: The AFG SLR model fans include (8) screws that can be used on masonry or brick and (8) screws with washers that can be used on wood and shingles. (see Figure 2.1B)

Figure 2.1A

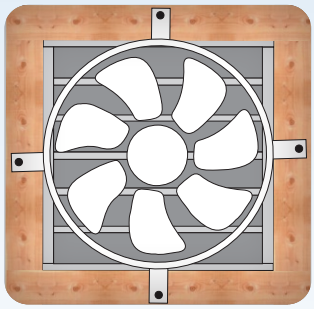


Figure 2.1B



Note: the screws with washers are for the solar panel and the screws without washers are for mounting the fan to the gable.

Figure 2.1C

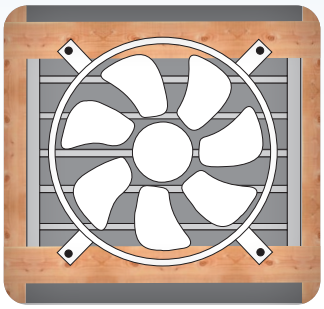


1. Installing the QuietCool AFG is very easy. To install the AFG, simply mount the gable fan to your gable vents as shown in the following steps:

Flush Mount: The AFG SLR can be mounted flush to a rectangular type louver by fastening through the mounting brackets to the frame of the louver (as shown in Figure 2.1C)

Fasten the fan to the vent frame studs. Once fastened, tighten the 8 mounting bracket nuts to secure the fan flush to the gable vent.

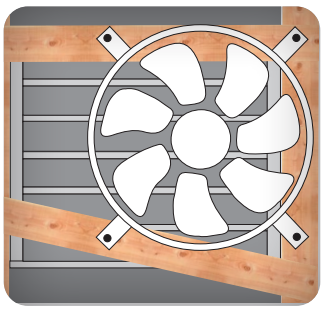
Figure 2.1D



Wide Mount: The AFG SLR can be mounted on a wide louver, but additional mounting steps must be taken in order for the fan to work properly. As shown in Figure 2.1D, two additional boards must be fastened to the boards framing the gable vent so the AFG SLR can be mounted securely.

Fasten the fan to the vent frame studs. Once fastened, tighten the 8 mounting bracket nuts to secure the fan flush to the gable vent.

Figure 2.1E



Odd Mount: The AFG SLR can also be mounted off center for an odd shaped louver (as shown in Figure 2.1E).

Any area of the louver that is not covered by the AFG SLR must be sealed off in order to prevent air leakage, which may hinder performance.

While this is not the most ideal way to mount the gable fan, it is possible. However, since the fan is not completely covering the vent, maximum airflow will not be achieved.

Fasten the fan to the vent frame studs. Once fastened, tighten the 8 mounting bracket nuts to secure the fan flush to the gable vent.

READ BEFORE ATTEMPTING TO INSTALL AN **AFR SLR** OR THE **AFG SLR** SOLAR PANEL

Getting Started

Always follow Local Building Codes because the fan may require specific fasteners or anchoring systems not discussed in this installation guide. Installation should be done by a licensed roofing contractor.

Safety Information

Safety precautions should be taken when performing the roofing work described in this installation guide. You can significantly reduce your risk of danger by following the below recommendations:

- Do not install the fan in wet or windy conditions
- Tie-off both yourself and your equipment when working on steep pitched roofs to avoid falls
- Wear safety glasses and protective gloves when using power tools
- Always wear slip-resistant shoes when working on the roof
- Do not cut through any rafters or structural members of the roof during installation

Tools/Materials You Will Need

- Cordless Drill with Nut Driver
- Roofing Nails
- Reciprocating Saw (for AFR)
- Measuring Tape
- Weatherproof Roofing Grade Sealant
- Roofing Knife (for AFR)
- Ladder Marker or Carpenter Pencil
- Secondary Flashing Material (for AFR on tile roof)

Choosing the Right Location for Airflow

Choose a location to install your QuietCool AFR SLR roof mounted fan that allows for balanced airflow throughout the attic space. We always recommend the fan to be installed centrally located on the roof three feet below the ridge line. This will allow you to access the fan very easily. Your roof mount fan should not be installed any closer than within 5 feet to an existing passive vent, ridge vent, or additional fan unit.

Roof Pitch Requirements (Max Roof Pitch - 8/12)

For roofs with less than a 3/12 roof pitch, the fan should be curb mounted using accessory SLR-CRB-2424

ⓘ IMPORTANT: DO NOT CUT THROUGH ANY RAFTERS OR STRUCTURAL MEMBERS WHILE CUTTING THE VENT HOLE. ONLY CUT OUT THE ROOF DECKING.

Choosing the Right Location for the Best Sunlight

Choose a location to install your QuietCool AFR SLR fan or AFG SLR solar panel is very important based on the sun's path during the day. The optimal adjustment is to have the panel 90 degrees to the midday path of the sun. Be sure to consider potential obstructions such as trees and other homes which may shade the solar panel during certain times of the day. Most of the time, in the United States, you will want to have the panel facing south.

If a southern or western exposure is not possible, the fan can be installed on any other exposure and the solar panel can be adjusted to capture maximum sunlight

There are many smartphone apps that can help in finding the best location for your solar panel based on the sun's location throughout the day.

2.2 INSTALLING AFG SLR SOLAR PANEL

Once you have found a location for your AFG SLR solar panel, now it's time to mount the panel. The wiring from the solar panel is 30 feet long and must connect directly to the AFG SLR. Make sure the location you have chosen is within 30 feet of the AFG SLR.

1. Attach the provided screws and brackets to the solar panel. Install the angle adjustment brackets by securing one end to the regulating plate and the other end to the solar panel frame.

Surface Mount on Shingle Roof



Drip Curve Example



2. Set up the panel as stated in Adjusting Panel Tilt.

3. Find the best mounting location (see Choosing the Right Location on page 6).

Shingle Roof: Using the four 1.5" galvanized screws and washers, fasten the panel to the roof.

Tile Roof: Find the contact points between the roof and the backside of the solar panel. Apply roofing adhesive to these contact points and firmly secure the panel to the surface.

4. To prevent leaking, make sure to apply weatherproof roofing grade sealant on the screwheads.

5. Now it's time to run the wire from the solar panel into the attic through the gable vent. Be sure to include a drip curve in the wire to ensure no water can run down the cord and enter the attic through the gable vent.

Surface Mount on Tile or Metal Roof



Connecting the Solar Panel



6. Now connect the wire to your AFG SLR. The AFG SLR will automatically turn on if there is sunlight and the temperature is above 88° F

Adjusting the Solar Panel

The fan's solar panel should be adjusted to maximize exposure to the sun's path during the day. The optimal adjustment is to have the panel 90 degrees to the midday path of the sun. You can readjust the panel during winter or summer seasons if desired.



Adjusting Panel Tilt

This fan has two solar panel adjustments. Set the angle properly to capture the most direct sunlight. Remove the screw on both sides of the panel assembly. Lift the panel and swing the panel braces up to the desired position and re-attach the screw in the applicable holes.



CAUTION

THE AFR SLR-40 COMES PRE-WIRED WITH THE SOLAR PANEL ATTACHED. THE FAN WILL TURN ON AUTOMATICALLY WHENEVER THE SUN SHINES ON THE SOLAR PANEL.

DO NOT REMOVE PAPER COVER THAT IS LOCATED ON THE SOLAR PANEL UNTIL THE INSTALLATION IS FINISHED. REMOVAL OF THE COVER CAN CAUSE UNINTENDED INJURIES IF THE FAN TURNS ON DURING INSTALLATION.

2.3 INSTALLING AFR SLR MODEL

Installation Video:
Watch the video by scanning the QR code or visit
www.QuietCoolSystems.com/support

1. Determine in which area you would like to install your QuietCool Attic Roof Mount Fan.

IMPORTANT: After choosing the location where your roof mount attic fan will be installed, find the closest rafter to that location and determine if your roof has either 16" on center or 24" on center rafter spacing.

2. Find the center point between the two rafters and mark it as the center of the vent hole. Partially insert a screw into the center point mark.

NOTE: If you have a tile roof, you will need to move the tiles out of the way before tracing and cutting. (See Figure 2.3A)

3. Go to the roof. Using the screw as a reference point, trace out a 14" diameter circle using the provided template.

Figure 2.3A



Figure 2.3B

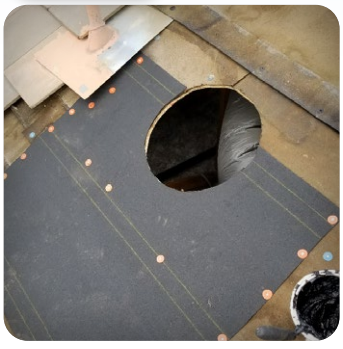


Figure 2.3C



Figure 2.3D



Figure 2.3E



Figure 2.3F



Figure 2.3G



Figure 2.3H



4. Use a reciprocating saw to cut out the traced hole pattern from the roof decking. Remove the cut out decking material from around the hole as needed.

If installing on a tile roof, continue to step 5. If installing on a shingle roof, skip to step 11.

5. Apply weatherproof barrier to the roof. (See Figure 2.3B)

6. Position the fan so that it is centered with the vent hole.

7. Lifting the fan unit up at an angle, apply weatherproof sealant to the bottom side of the fan unit. This will help keep the fan in place and will seal nice and tight. (See Figure 2.3C)

8. Using a minimum of 8 roofing nails, nail the fan to the roof through the primary flashing. To prevent leaking, be sure to apply weatherproof sealant on the nail heads. Once complete, apply more weatherproof barrier to the top of the flashing. (See Figure 2.3D)

9. Using sheets of aluminum, construct a secondary flashing out of two pieces of material by cutting out a semi-circle shape on either side while flaring up the edges that will stick up above the tile, creating a "bib" that will go around the fan. Once constructed, install the flashing material on top of the primary flashing and attach using weatherproof sealant. (See Figure 2.3E)

10. Apply weatherproof sealant all around the fan housing and secondary flashing, closing the gap between the flashing, the fan unit, and the tile. Using an angle grinder, cut the removed tiles as needed. Re-install the tile around the fan unit. (See Figure 2.3F, 2.3G, and 2.3H)

Figure 2.3I



Shingle Roofs:

11. If you have a shingle roof, insert the reciprocating saw sideways between the shingles and roof decking. Starting at the 3 o'clock position of the vent hole, begin cutting in a sweeping motion under the shingles, cutting through any roofing nails or staples. Continue cutting counter-clockwise around the vent hole until reaching the 9 o'clock position. Using a roofing knife, cut a 4 inch horizontal slit in the shingles at the 9 o'clock and 3 o'clock positions of the hole, allowing the fan's flashing to slide underneath the shingles.

Figure 2.3J



12. Slide the fan unit underneath the shingles until the fan reaches the top of the hole. (See Figure 2.3I)

13. Lifting the fan unit up at an angle, apply weatherproof sealant to the bottom side of the fan unit. This will help keep the fan in place and create a tight seal. (See Figure 2.3J)

Figure 2.3H



14. Secure the fan flashing to the roof using a minimum of 8 roofing nails. Finish applying weatherproof sealant around the fan and nails and secure the shingles by re-nailing them into the roof. (See Figure 2.3H)

Adjusting the Solar Panel

The fan's solar panel should be adjusted to maximize exposure to the sun's path during the day. The optimal adjustment is to have the panel 90 degrees to the midday path of the sun. You can readjust the panel during winter or summer seasons if desired.

Adjusting Panel Tilt
This fan has two solar panel adjustments. Set the angle properly to capture the most direct sunlight. Remove the screw on both sides of the panel assembly. Lift the panel and swing the panel braces up to the desired position and re-attach the screw in the applicable holes.

Adjusting Panel Rotation
The fan has a horizontal rotational adjustment that moves 90°. Simply loosen the 4 wing nuts to loosen the solar panel and rotate for adjustment. If you need more adjustment than 90°, the assembly can be removed by removing the 4 wing nuts and repositioning the panel. This gives a full 360° rotation ability.

Figure 2.3G



Figure 2.3H



Figure 2.3I



Figure 2.3J



3. WIRING

3.1 CONNECTING THE AC/DC SMART INVERTER

Your QuietCool Solar Attic Fan includes an AC/DC power inverter. This inverter is used to run the solar attic fan at nighttime when there is no sunlight.

Simply plug the solar inverter from your fan into a 110v outlet in your attic. The Smart Inverter will automatically switch between AC power and DC solar power depending on the level of sunlight present. If you do not want to use the AC/DC Smart Inverter, simply leave the fan unplugged. The fan will still run anytime there is sunlight.

4. SYSTEM OPERATING INSTRUCTIONS

4.1 HOW TO OPERATE

QuietCool Attic Fans work almost everywhere, almost anytime. During the summer, an attic can be 40-50 degrees hotter than the outside temperature, which in turn heats up the house much faster. With an attic fan, you can cool the attic to the same temperature as it is outside, greatly reducing the house from heating up as quickly.

The best part about a QuietCool Solar Attic fan is that you never have to think about it! Since it runs off solar power, it will turn on whenever the attic temperature is above 88°F and there is sunlight. The fan will turn off when the temperature is below 77°F.

At nighttime, the fan will continue to run if you connected the QuietCool AC/DC Smart Inverter. This gives you cooling capability 24/7. The thermostat will also function when the fan is running on the Smart Inverter meaning it will turn on whenever the attic temperature is above 88°F and will turn off when it is below 77°F.

QC Manufacturing Inc.

MAKERS OF THE QUIETCOOL ADVANCED WHOLE HOUSE FAN

SOLAR ATTIC FANS LIMITED WARRANTY

This warranty is extended to the original purchaser of this model or, if this unit is purchased and requires installation by a building contractor, to the original owner of the home. No subsequent purchaser of the unit or of a home in which it is installed is entitled to any of the benefits of this warranty. The QuietCool Product that you have purchased has a limited warranty from the date of purchase against defects in workmanship and materials. Please see attached chart below for warranty details. If you believe you received a defective product, call our customer service at 1-888-QUIETCOOL. Have proof of purchase available to validate the warranty. If it's necessary to send the defective part to QC Manufacturing, Inc., freight is paid by the customer. If found to be defective following examinations, any defective part will be replaced free of charge and returned freight prepaid. This warranty does not cover any labor costs, including those required for diagnosis, field repair or replacement or removal of any allegedly defective part. The company reserves the right to require and receive proof of purchase of the date of purchase before undertaking its obligations under this warranty. The right to require and receive proof of purchase of date of purchase extends to all licensed dealers of QC Manufacturing Inc. products.

Limitations

QC Manufacturing, Inc. shall not be liable for, and this warranty does not apply to, any failure, defect or damage resulting from or connected with misuse, abuse, neglect or improper handling or staging , or installation not in strict adherence to QC Manufacturing's written instructions; unauthorized alteration to factory specs, lack of maintenance, lack of proper ventilation transportation damage, impact of foreign objects, fire, flood, earthquake, lightning, hurricane, hail, tornado or other violent storms, force majeure or other act of (g)God; or defects in failure of or damage caused by materials used as roofing base over which the product is installed or by movement, distortion, cracking or settling of walls or the foundation of the building. QC Manufacturing, Inc. reserves the right to discontinue or modify any of its products including, without limitation, color, and shall not be liable as a result of such discontinuation or modification, nor shall QC Manufacturing, Inc. be liable in the event replacement material may vary in color in comparison to the original product as a result of normal weathering.

This warranty does not cover damage caused by standing water. Applications exposed to salt spray or within 2 miles of the seacoast, must be maintained by washing with fresh water at least twice a year. Not doing so could cause warranty to be voided. This warranty is restricted to failures resulting from normal weathering and does not include coating failures caused by scratches, scrapes or any other unnatural damage including; improperly formed, fabricated or embossed material. If QC Manufacturing, Inc. replaces any product under this warranty, it may substitute products designated by QC Manufacturing, Inc. to be of comparable quality or price range in the event the product initially installed has been discontinued or modified.

Even if your Fan was not properly installed according to QC's published application instructions, this limited warranty remains in effect if your Fan fails to perform as a result of a manufacturing defect.

However, QC will NOT compensate you for:

1. Damage from anything other than an inherent manufacturing defect in your Fan, such as:
    - Improper installation of your Fan, faulty application, or application not in strict accordance with QC's published application instructions.
    - Settlement, movement, or defects in the building, walls, foundation, roof deck, or materials adjacent to or over which the Fan was installed.
2. Damage to your Fan or leaking into your building resulting from factor beyond QC's control, including, but not limited to:
    - Acts of nature, such as hail, storms, or winds.
    - Improper storage or handling of your Fan.
3. Damage resulting from the application of overlying or adjacent roofing materials.
4. Damage resulting from mold growth or condensation.
5. Chipping, fading, or peeling paint on your Fan.
6. Labor costs for removing or replacing your Fan except as specifically provided for above or for any other roofing or building materials.
7. Solar Panel Degradation

Limited Warranty Protection
Solar Attic Fan - Controls

QC Manufacturing, Inc. extends this warranty coverage to the original purchaser of the following QuietCool products (see attached for applicable products) for a period of time (varies by product) provided that the product has been installed in strict accordance with QC Manufacturing, Inc.'s written installation instructions. Under this warranty, QC Manufacturing, Inc., at no charge, will repair or replace any product found to be defective during the warranty period as long as proof of purchase is submitted to QC Manufacturing, Inc. (QC Manufacturing, Inc.'s period begins when the product installation is completed). QC Manufacturing, Inc.'s maximum liability under this limited warranty will be equal to the reasonable cost to replace the defective product.

QC Manufacturing Inc.

MAKERS OF THE QUIETCOOL ADVANCED WHOLE HOUSE FAN

SOLAR ATTIC FANS LIMITED WARRANTY

Motor Replacements

The electrical motor is to be used solely as a direct replacement for a motor of the same model in QC Manufacturing, Inc., QuietCool products. Using the motor in any other product could result in electrical shock and/or fire, which may cause property damage, serious injury or even death. Any motor replacement should be installed by a qualified licensed electrician in accordance with local, state and national electrical codes and standards. Make sure that power to the unit has been completely turned OFF at the breaker before approaching or inspecting or installing the replacement motor. If found that the motor failure was by improper installation QC will not be liable for any cost associated with the motor replacement. For example, cost of motor and shipping costs to and from the customer. Repairs and replacement parts supplied under this warranty are warranted only for the period listed in the below chart from the date of original retail purchase of the unit.

Other Conditions

This warranty is the entire agreement between you and QC Manufacturing, Inc., and there are no other oral or written warranties, liabilities or obligations of QC Manufacturing except apart from those set forth herein. Pertinent state law shall control for what period of time subsequent to sale a consumer/homeowner may seek a remedy pursuant to the implied warranty of merchantability or fitness for a particular purpose. In no event shall QC Manufacturing, Inc. be liable for consequential or incidental damages of any kind, including any damage to the building, its contents or any persons therein, resulting from the breach of any warranty set forth herein, unless exclusion of these types of damages are specifically prohibited by state law. No field representative of QC Manufacturing, Inc. or any distributor or dealer is authorized to make any change or modifications to this warranty.

Products	Model Numbers	Warranty
Solar Gable Fans	AFG SLR-30, AFG SLR-40	Fifteen (15) Year coverage applies to the QuietCool motor fan assembly and Solar Panel. Motor assembly includes Motor and Fan Blade. One (1) Year coverage for all other components including grilles, housings, damper boxes, ducts, controls and accessories furnished by QC Manufacturing, Inc.
Solar Roof Mount Fans	AFR SLR-30, AFR SLR-40	
Accessories	**Model Numbers**	**Warranty**
Controls	SP-INVERTER	One (1) Year coverage applies to the models indicated.

How to Start the Warranty Process

To obtain service under this warranty, first contact your dealer where you purchased the equipment. If you are unable to find or reach your dealer, contact Customer Service at QC Manufacturing, Inc. by phone, email or visiting our website at https://quietcoolsystems.com/support/return-merchandise-authorization/ to start the RMA process.

An RMA (Return Merchandise Authorization) form is required for returns to the factory to ensure your return can be processed efficiently and quickly. There is no informal dispute settling mechanism available in the event of a controversy involving this warranty

QC Manufacturing, Inc. Customer Service

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Temecula, CA 92591
www.QuietCoolSystems.com
951-325-6340

Rev. 9/29/22

QC Manufacturing Inc.

MAKERS OF THE QUIETCOOL ADVANCED WHOLE HOUSE FAN

FAN SERIAL NUMBER INFORMATION

RETAIN FOR YOUR RECORDS.

SERIAL NUMBER IS REQUIRED FOR WARRANTY PURPOSES.