

Thank you for purchasing this fan from SHURflo. Please take a few minutes to read this entire manual before attempting installation. If you have any questions, please contact your nearest dealer or SHURflo. This unit will work at an infinite range of speeds in automatic or manual modes at a wide range of temperature settings. Automatic dome-sensing control allows it to work with most vent covers. Automatic shut-off when it's raining and motor thermal protection are just a couple of the exciting safety features of this fan.

Standard Features

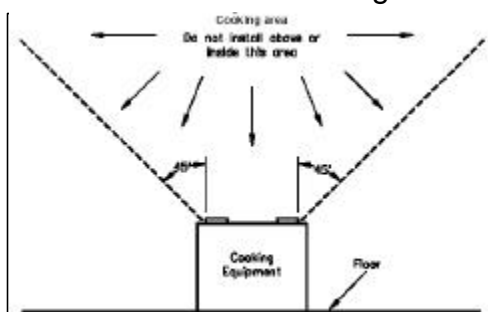
- True Variable Speed Fan
- Easy-Remove Screen
- Fits Standard 14" x 14" Roof Openings
- Thermally Protected Motor
- High-Amp Dome Safety Control
- Remote-Control
- Intake & Exhaust Operation
- Motorized Dome
- Automatic Rain Sensor
- Auto-Temp Control from 60°F – 100°F

Contents

- 1 Comfort Air™ Fan Unit, including
 - 1 upper unit
 - 1 internal flange & 4 screws
 - Supplied trim fits roofs 3-1/2"-5-1/4"
- 1 Remote Control
- 1 Remote Wall Mount & 2 screws
- 1 9-Volt DC Remote Control Battery
- 1 Installation and Operation Manual

⚠ Location

- Fan must be installed with the hinge facing the direction of travel.
- Locate bi-directional fan at least 3 feet from any exhaust vent.
- Do not install fan in cooking area.



⚠ Important Information

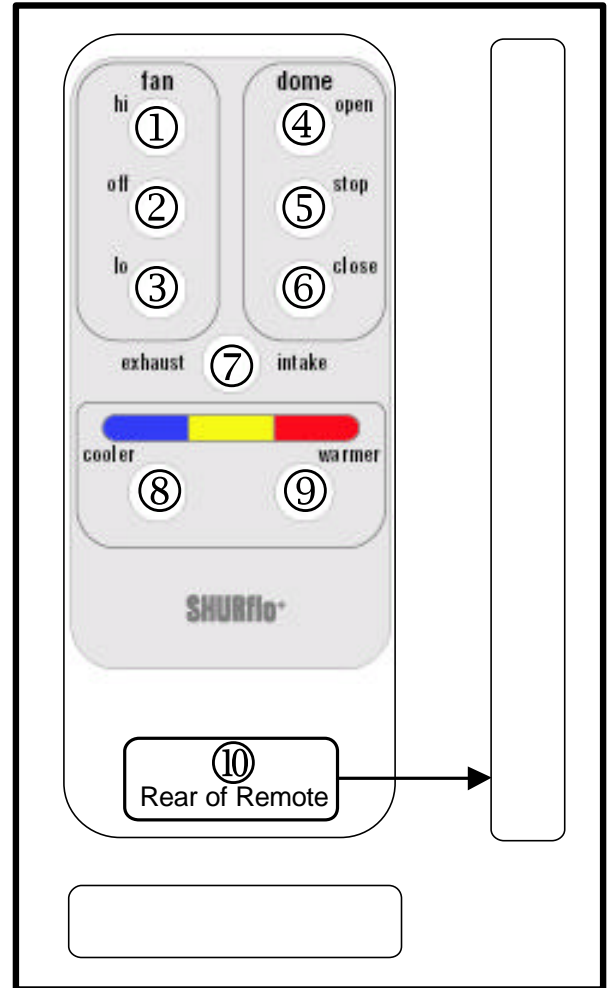
- SHURflo recommends professional installation.
- Please read the entire manual before attempting installation.
- This unit requires **12 VDC Power** only.
- This fan uses **5 Amps**. Use 6A fuse.
- Follow all local building / electrical codes.
- Black wire is negative ground [-].
- Red wire is positive power [+].
- **Never** reverse polarity. Reverse polarity can damage circuit board.
- **Never turn the fan on with the screen removed.**
- **Always turn off power before removing screen.**
- Never place any objects in moving blade path.

Tools and Materials Required

- #2 Philips screwdriver
- Scraper
- Wire stripper/crimp tool
- Butyl sealing tape (1/8" x 1" x 6')
- 18 Gauge or larger copper stranded wire
- Insulated wire connectors
- 6-Amp fused circuit
- All weather Silicone sealant
 - Rubber roofs require EPDM sealant
- 3/4" or 1" x #8 self-tapping screws [28] for roof mounting. Screws removed from old unit can be used.

COMFORT AIR™ FAN REMOTE COMMANDER

- ① **Fan Hi Fan Speed Increase +**
Press this button to increase fan speed.
- ② **Fan Off Fan Stop & Power Off**
Press this button to stop the fan in Manual.
Press this button to exit Auto Mode [fan will stop and dome will close].
- ③ **Fan Lo Fan Speed Decrease –**
Press this button to decrease fan speed.
- ④ **Dome Open**
Press this button to Open the Dome.
- ⑤ **Dome Stop**
Press this button to Stop the Dome.
- ⑥ **Dome Close**
Press this button to Close the Dome.
- ⑦ **Exhaust / Intake**
Press this button to change fan direction.
- Thermostat Control & LED Light Bank**
Adjust fan temperature from
60°F [green lights] to 100°F [red lights]
- Remote Reset**
Left green light and right red light are used
when resetting the remote control. See
Section on Resetting The Remote.
- ⑧ **Cooler (Auto Mode)**
Press this button to set fan in Auto mode and
to lower the thermostat temperature setting
- ⑨ **Warmer (Auto Mode)**
Press this button to set fan in Auto mode and
to raise the thermostat temperature setting
- ⑩ **Battery Compartment (Rear of Remote)**
Slide open rear compartment to replace 9V
battery.



NOTICE: Unit will not operate without remote. If remote is lost or damaged, turn power off and close dome with hand crank. Call your dealer or SHURflo for a replacement remote control.

Resetting The Remote Never reset remote control with screen removed.

It may be necessary at times to reset the remote to match the Comfort Air™ unit. This would be done to make one remote work for 2 fans, to make 2 fans operate from different remotes, or when purchasing a new remote for an installed unit.

To reset the remote to a fan unit:

1. Press and hold **FAN OFF** [②], until green and red lights blink [about 10 seconds].
2. **WITHOUT RELEASING FAN OFF** Button [②], press the **Reset Button** on the fan unit [see fan picture].
3. Hold buttons until fan motor goes into high speed. Fan unit is now reset to this remote.

To avoid resetting 2 fans at the same time, completely turn off the power to the fan you do not want to reset.

Installation

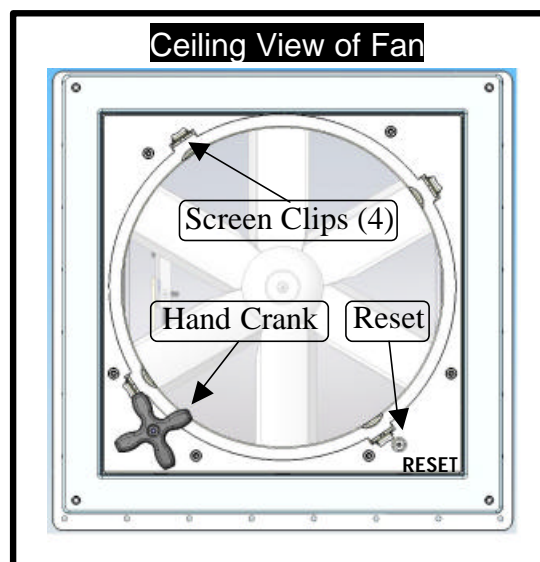
1. Turn off all power to fan.
2. If it is a new installation, cut and frame out a 14" x 14" hole. Prepare all wiring and fusing per specifications.
3. Remove old fan inside and out.
4. Carefully remove all old roof sealant. Surface must be clean and dry.
5. Check fit of new fan inside and out.
 - Hinge must face toward front of the RV.
 - Verify correct wiring size and length.
 - Check inside ceiling flange clearance.
 - Supplied trim fits roofs 3-1/2" to 5-1/2" thick.
 - Trim can be cut or call SHURflo for other sizes
 - Holes in roof exterior can be filled with wood putty or sealant to ensure a better seal later.
6. Apply 1" Butyl putty tape around mounting hole pattern on roof side of fan chassis.
 - Center the tape over the mounting holes.
7. Place unit on roof and check alignment inside and outside.
 - Hinge must be to the front of the RV.
8. Screw unit to roof with 28 screws.
 - Screws removed from previous unit can be used.
9. Seal all edges and screws with silicone sealant, or use EPDM Rubber roof sealant for rubber roofs.
 - Do not allow sealant to contact dome hinge or rain sensor.
10. Check wire polarity and connect wires inside of coach.
 - Red wire is positive (+).
 - Black wire is negative (-).
 - Polarity must be correct or damage to circuit board will result!
11. Test hand crank by pulling down on crank and turning CW to open dome.
 - Crank must be in upper position for power operation.
 - Dome motor must be stopped before moving hand crank in or out.
12. Place lower trim in place and secure with 4 screws provided.
 - Hand crank should be facing front.
13. Turn on main power to unit.
14. Place 9V battery in Fan Remote Commander.
15. Reset remote and test unit. See Section on Resetting The Remote.

Fan and Remote Cleaning

Turn off all power, and remove screen by unsnapping 4 fan clips. Wipe fan and remote with damp rag with mild detergent only. Dry unit after wiping. Do not immerse fan or remote in water.

To replace screen, align clips and snap into place.

NEVER OPERATE FAN WITH SCREEN REMOVED!



Operation

HAND DOME OPERATION

Pull down on manual crank and turn to open or close the dome by hand. Push crank up to lock gears for power dome operation.

MANUAL MODE

Press Fan Hi 1 or Fan Lo 3 buttons or Dome Open 4, Stop 5 or Close 6 buttons to operate in Manual Mode.

Changing Fan Direction

Press Exhaust/Intake button 7 to change direction.

AUTO MODE

Press Cooler button 8 or Warmer button 9 on the remote to lower or raise thermostat temperature setting. Dome will open and fan will start only above selected operating temperature. When temperature drops 5° F below set point, dome will close and fan will shut off. Dome will automatically open and fan will restart when temperature set point is reached.

Changing Fan Direction

Press Exhaust / Intake button 7 to change fan direction.

Adjusting Fan Speed or Dome Opening

Press Fan Hi button 1 or Lo button 3 to adjust fan speed. Press Dome Open button 4 or Close button 6 to adjust dome opening. Press Dome Stop button 5 to stop dome in desired position.

To Exit Auto Mode

To exit Auto Mode press Fan Off button 2. Dome will close and fan will power off. Holding down Cooler Button 8 will exit Auto Mode with fan running.

Rain Sensor

This unit is equipped with a rain sensor to automatically shut off the fan **when rain is detected in Auto Mode only**. Sensor is not activated in Manual Mode.

When rain sensor is activated, dome will close and unit will turn off. Fan will not restart when rain sensor dries out. Fan unit must be restarted in Manual or Auto Modes.

Specifications

Voltage	10 - 14 Volt DC
Maximum Amps	5 Amps Use 6-Amp Fuse
Hole Size	14" x 14" Standard [13.75" to 14.25" square]
Roof Thickness	
2" to 3-1/2"	Trim # 21-1613-00
3-1/2" to 5-1/4"	Trim # 21-1613-01 [Standard]
5" to 6-1/4"	Trim # 21-1613-02
Maximum CFM	
Intake	920 CFM
Exhaust	1055 CFM
Thermostat Range	60°F to 100°F
Remote Control	Model 84-940-xx
Remote Battery	9 Volt DC
Dimensions	17" x 17" x 4-1/4" closed 17" x 17" x 12-1/2" open
Materials	UV resistant ABS and Polycarbonate
Wire	12" Red (+) Black (-) 18 AWG

Troubleshooting

PROBLEM	POSSIBLE SOLUTIONS
Fan remote does not work	Check main power, fuse and battery. Reset remote.
Fan & dome buttons do not work with fan off and dome closed	Unit in Auto Mode: press Fan Off to exit Auto Mode
Unit shuts off and closes	Preset temperature reached in Auto Mode, Rain sensor activated: Adjust Thermostat to turn fan on. Press fan Off to exit Auto Mode.
Dome will not open or close, but dome motor is running	Push hand crank up to actuate dome motor gears. Dome motor will turn off after 3 to 5 minutes if gear is not engaged.
Dome starts to open or close and then stops. If motor continues to run:	Dome hitting object. Check dome path for obstruction. Push up crank gear to engage.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of the manufacturer could void the user's authority to operate this equipment.

Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Limited Warranty Information

SHURflo Pump Manufacturing Co. (SHURflo) warrants this product to be free from defects in material or workmanship to the original owner for personal or family use, for a period of 2 years, *5 years warranty on exterior Dome and Screen* from original date purchase. This product is warranted for 90 days from original date of purchase when used for commercial or business application. The warranty may provide for repair, including labor or exchange or replacement of unit, or parts as necessary.

An owner having a part or unit believed to be defective should contact a local RV dealer, or contact the nearest SHURflo office.

SHURflo will not accept the return of parts or units, will not send out parts or units or allow for the repair or replacement of parts or units under this warranty without giving their prior expressed authorization and without proof of date of purchase.

If SHURflo finds the unit or part to be defective and is the subject of a valid warranty claim, SHURflo will pay the dealer a labor allowance and supply repair part(s) or a replacement unit as applicable.

This warranty does not extend to parts or units which if, in the judgment of SHURflo, have been damaged or rendered defective by misuse, negligence, accident, improper installation, unreasonable use or if the unit or part has been tampered with or altered in any manner.

In no event, whether as a result of breach of contract, tort (including negligence) or otherwise, shall SHURflo be liable to any owner of a unit for any special damages arising out of the use, or inability to use that unit, nor for any claim against the owner by another party. Some states and provinces do not allow limitations on how long an implied warranty shall last or do not allow the exclusion or limitation of incidental or consequential damages. So the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights that may vary from state to state.



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SHURflo reserves the right to update specifications, prices, or make substitutions

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