



3307852.008 12 Volt DC Solar Powered Maintenance Charger Kit For House Battery

This Kit Contains:

- | | | | |
|-----------------|---------------------|-----------------|---------------------------------|
| (1) 3307853.006 | Template Assembly | (1) 3109855.019 | Solar Panel Circuit Board |
| (2) 3105445.005 | #10-12 x 3/4" Screw | (2) 309513.039 | .200" x .750" x .030" SS Washer |
| (1) 3109856.009 | Solar Panel | (1) 302997.019 | Strain Relief-5L-1 |
| (1) 3109283.014 | .266" I.D. Grommet | (1) 3307911.028 | Installation Instructions |
| (1) 3308126.014 | Decal, Solar | | |

GENERAL INSTRUCTIONS

⚠ WARNING

These instructions must be read and understood before installation of this kit. This kit must be installed by a Dometic Service Center or a qualified service technician. Modification of this product can be extremely hazardous and could result in personal injury or property damage.

⚠ WARNING

Disconnect 115 volt AC power and the 12 volt DC positive (+) terminal at the supply source. Failure to follow these instructions could create a shock hazard causing death or severe personal injury.

- A. This kit is designed to be installed on Duo-Therm Brisk-Air and Penguin air conditioners only. Do not install on any other brand name air conditioner.
- B. The Duo-Therm solar powered 12 Volt DC maintenance charger will provide a continuous maintenance charge (Certain conditions apply. See Operating Instructions on page 4) for your house battery. When the YELLOW LED is lit, the solar panel will provide up to a five (5) watt charge to the house battery when connected properly.

INSTALLATION INSTRUCTIONS

- A. Remove shroud from air conditioner and turn it upside down. See FIG. 1 & FIG. 2.
- B. Align template inside shroud as shown in FIG. 1 for Brisk-Air or FIG 2 for Penguin. On Brisk-Air models make sure center of V notches in template are lined up with center of rib in shroud. On Penguin models place the template on the bottom of shroud and slide it towards the smaller end. The correct position is when the template ends make contact with the shroud flange sides. When correct position has been determined, mark outline of template on shroud. Remove paper from self-adhesive foam tape on bottom of template and reposition template on shroud.

FIG. 1 Brisk-Air Series

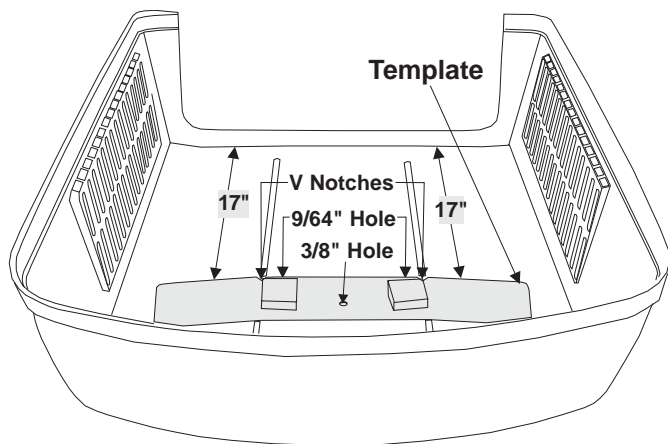
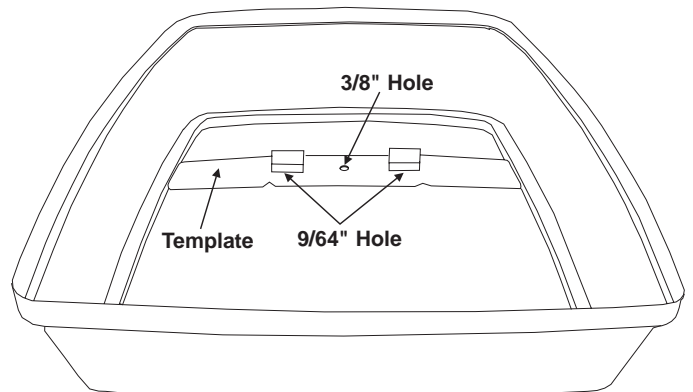


FIG. 2 Penguin Series



- C. Using the template as a guide, drill three (3) holes in shroud. See FIG. 1 & 2 for hole location and size.
- D. Turn shroud right side up. Align holes in solar panel with holes drilled in shroud. Attach solar panel to template using two (2) #10 Screws and Washers. See FIG. 3. Tighten screws to 10 inch pounds. Do not over tighten.
- E. Insert rubber grommet into middle hole. See FIG. 3.
- F. Route solar panel black cable through grommet in shroud. See FIG. 3.
- G. Situate shroud over air conditioner in a way that will allow the solar panel black cable to be threaded through hole in evaporator cover up to the white band around cable. See FIG. 4A & 4B. Secure cable at this point using the strain relief supplied. **Note:** Hole in evaporator cover may be hidden behind insulation.

FIG. 3 Brisk-Air & Penguin

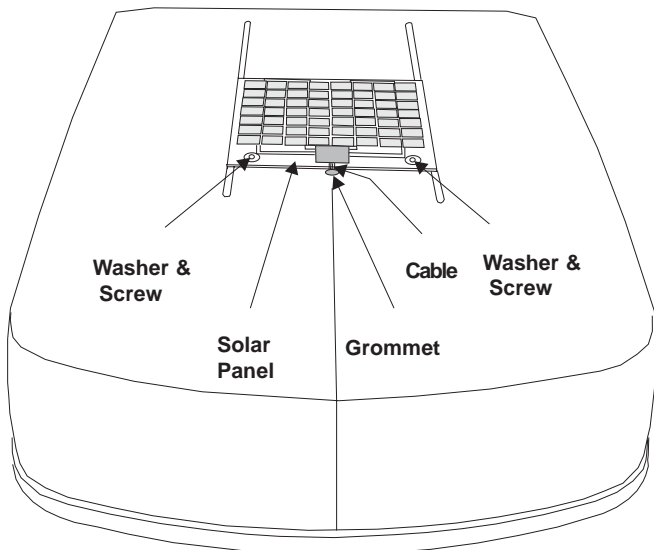
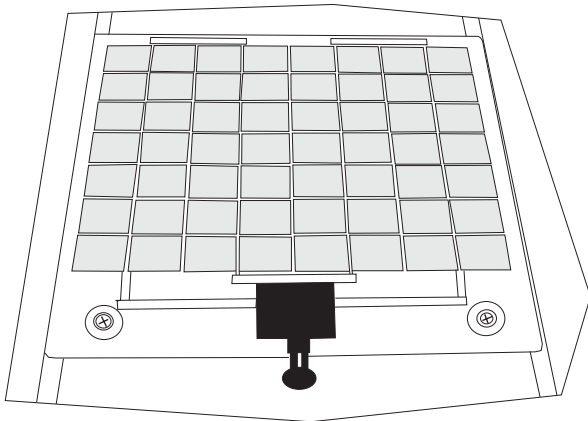


FIG. 4A Brisk-Air Series

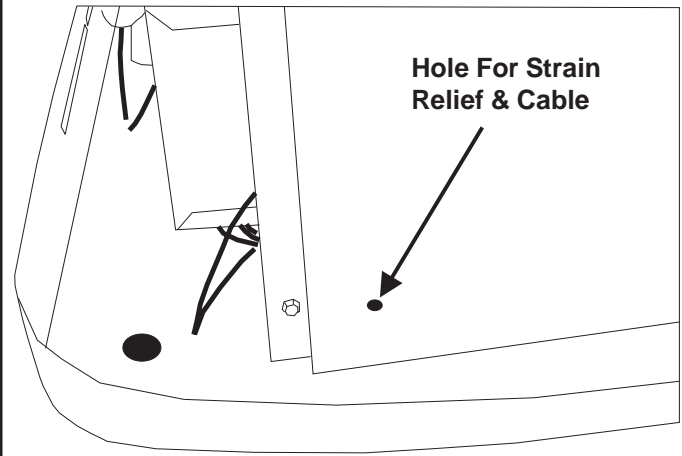
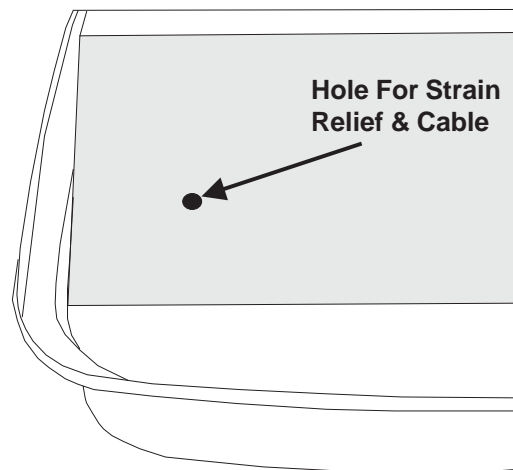


FIG. 4B Penguin Series



H. Reinstall shroud.

Note: For 3308120.0XX Genesis Air Filtration System go to step J1.

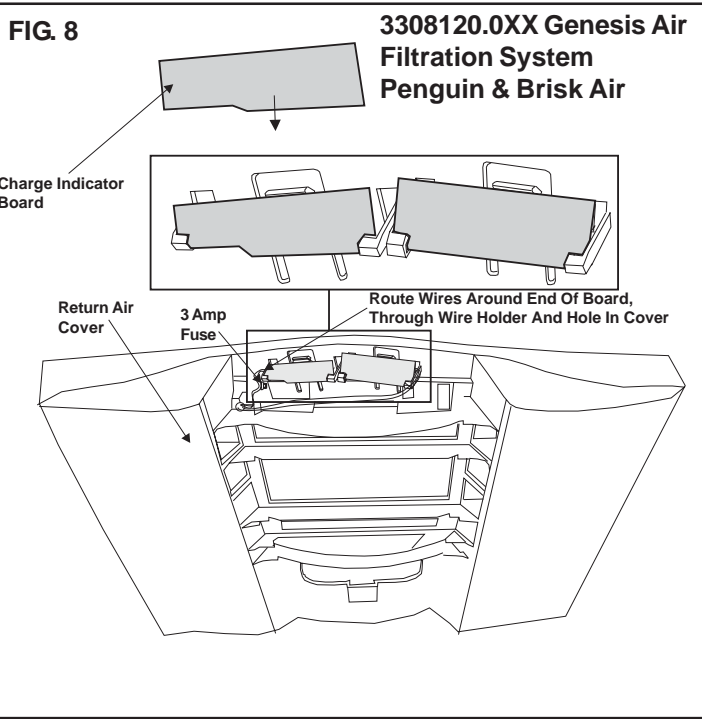
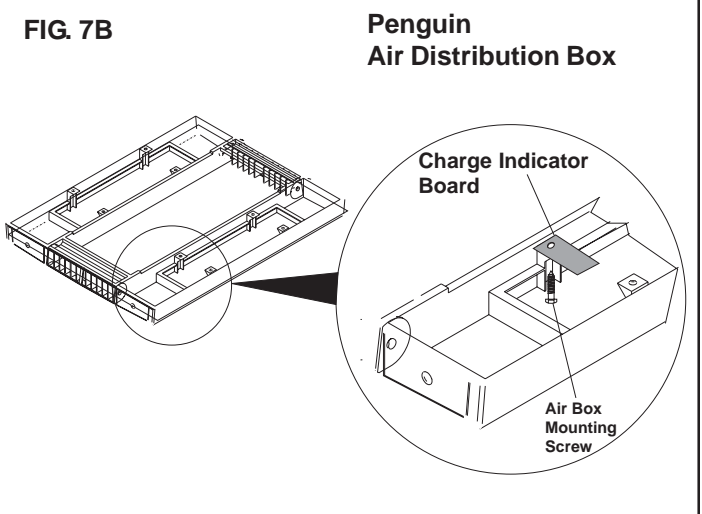
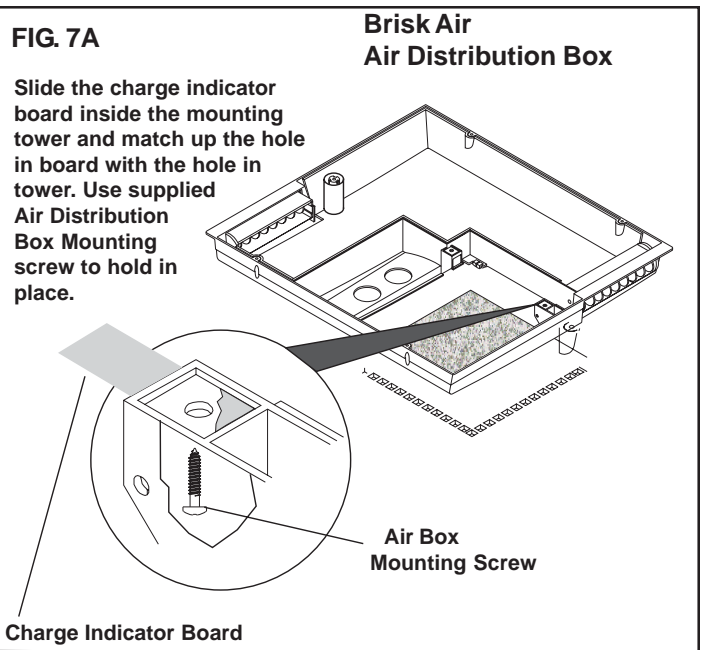
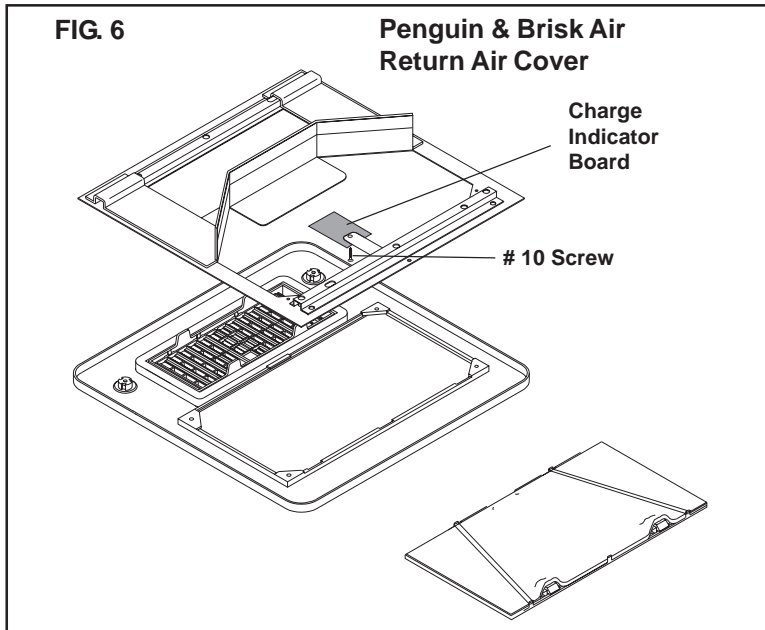
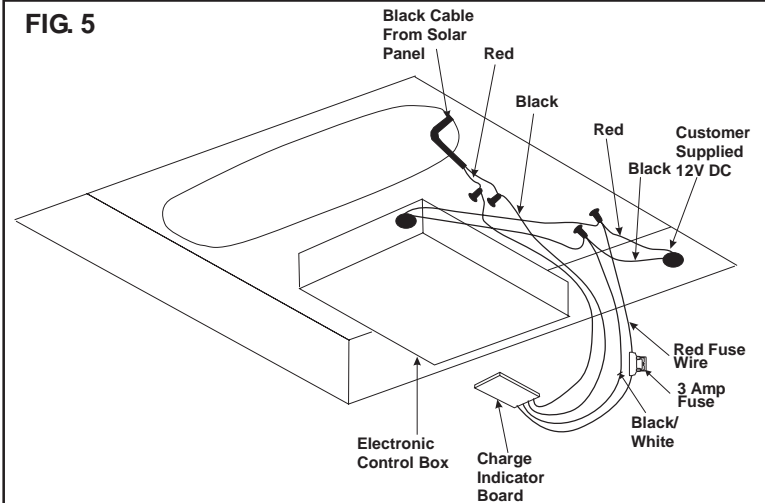
I. Connect the red & black wires from the charge indicator circuit board to the red & black wires from the solar panel. Connect the red fuse wire & black/white wire from the charge indicator board to the 12 Volt DC power going to the control box or 12Volt DC power wires. Remove the air filter to access wires. See FIG. 5. On some models it may be necessary to remove the inside ADB or Return Air Cover Assembly, to access the wiring .

Important: The 12 Volt DC must be sourced from the battery side of converter. 12 Volt DC (Customer Supplied) is required for each air conditioner equipped with a solar panel that is not connected to the control box.

J. Using the double sided stick tape attach the charge indicator circuit board in a position that allows the LED to be viewed through the filter grill or use one of the following methods:

1. On ducted installations with 3105007.0XX & 3105935.0XX return air cover, use a # 10 screw (not supplied) to mount the charge indicator circuit board to the ceiling template as shown in FIG. 6. On 3308120.0XX return air cover remove the grill assembly. Remove the return air cover and snap the charge indicator board in the bracket on the front of the cover. See FIG. 8. Route wires around end of board, through wire holder and hole in cover. Do not route wires over board. Connect to the appropriate wires. See FIG. 5. Reinstall return air cover.

2. On Air Distribution Box installations, use one Air Distribution Box Mounting Screw and mount the charge indicator circuit board as shown in FIG. 7A for Brisk Air models or FIG. 7B for Penguin models. (Remove Filters For Access.)
3. 3308120.0XX Genesis Air Filtration System Only. Remove decal from front of grill and replace it with one in kit. Install grill in cover.



Operating Instructions

The Duo-Therm Solar Powered Battery Maintenance Charger is designed to operate automatically. There is no switch to turn ON or OFF. When the solar panel (which is located on top of the Air Conditioner) is exposed to direct sunlight it will automatically create up to a 5 watt 12 Volt DC charge. This is visible by viewing the Yellow LED. On Air Distribution Box and 3105007 & 3105935 Return Air Cover the Yellow LED is visible through the filter. On 3308120 Genesis Air Filtration System, it is visible on the front of the grill. When lit, the charging system is functioning. When the LED is not lit the system is not producing a 12 Volt DC charge. The solar panel will not operate if the panel is covered with snow, is positioned under a shade tree, inside of a building or in any position that will not allow the sun to directly hit the solar panel.

If the Yellow LED is not lit check the following:

- A. If equipped with an Air Distribution Box or 3105007 & 3105935 Return Air Cover remove the filter and see if the LED is lit. If it is, system is working. Clean filter so Yellow LED is visible.
- B. Make sure the solar panel is not shaded from the sun. Charger will not operate inside a building, in the shade or at night time.
- C. Make sure no debris has settled on the solar panel such as snow or leaves.
- D. If the above conditions are found to be okay and the Yellow LED is not lit, take it to a Dometic Service Center or qualified service technician for diagnosis and repair.

Cleaning Procedure

The Duo-Therm Solar Powered Battery Maintenance Charger requires no maintenance. However, It may be necessary to clean the solar panel periodically.

- A. Remove any large debris such as leaves from solar panel.
- B. Wash solar panel surface with a mild soapy water and a soft cloth. Do not use abrasive material such as scouring pads.
- C. Rinse with clean water and dry with soft cloth.