



LITERATURE NUMBER 297-333701

Friction Hinge for Non-Motorized Recreational Vehicle Entry Door

Model # All

This Friction Hinge design has been verified to the guidelines stated in this document for use on recreation vehicles.

SERVICE CALLS & QUESTIONS

Location and phone numbers of qualified Service Centers can be found at our website <http://www.atwoodmobile.com> or call 866-869-3118 to locate a Service Center.

SAFETY ALERT SYMBOLS

Safety Symbols alert you to potential personal safety hazards.
Obey all safety messages following these symbols



WARNING

avoid possible
injury or death



CAUTION

avoid possible
injury and/or property damage



WARNING

MAY CAUSE PERSONAL INJURY OR DEATH

For your safety and protection, it is important that this installation manual is read and understood before installation or use. Failure to properly install the unit or attempting to modify it in any way can be extremely hazardous and may result in property damage and personal injury and will void the warranty.



CAUTION

MAY CAUSE PERSONAL INJURY OR PROPERTY DAMAGE

Incorrect or improper installation or adjustment may cause personal injury and/or property damage.



WARNING

MAY CAUSE PERSONAL INJURY OR DEATH

This hinge design is intended for use in non-motorized recreational vehicle applications. It is not intended to be used on doors adjacent to areas that are to be occupied while the vehicle is in motion. Use of this

•Installation •Operation •Maintenance

Effective 01/16/2014

GENERAL INFORMATION

Friction hinges are presented as an option on some recreational vehicle entry doors. In most cases, they are interchangeable with standard hinges. Similar features to both friction hinges and standard hinges are the pin, the leaf that connects to the door and the leaves that connect to the door frame; however, the friction hinge has additional integrated components and base geometry that introduces the ability to introduce resistance into the hinge where a standard hinge is "free-swinging". Rather than provide a fixed resistive value, the friction hinge is configured to be adjustable in order to give user control of resistance value. Due to the nature of this type of mechanism, periodic adjustment and maintenance of the hinge is required to maintain desired operation.

PURPOSE

This product is designed to provide an adjustable operational resistance to an otherwise free-swinging recreational vehicle entry door. The friction hinge is intended to be installed in order to give user control of resistance value, and is intended to be a direct replacement for on some models of Atwood non-motorized recreational vehicle entry door.

hinge in a motorized application is prohibited in its intended application or otherwise restricted in accordance with federal guidelines.

INSTALLATION

How to mount the Friction Hinge to your RV

TOOLS REQUIRED:

- Screws (dealer/installer/manufacture specified)
- Rivets (dealer/installer/manufacture specified)
- Drill with 3/16" or larger bit (for removing rivet heads)
- Screwdriver (screw gun recommended)
 - Type of driver determined by fastener
- Rivet driver
- Step Ladder (for reaching higher mounted hinges)



WARNING

MAY CAUSE PERSONAL INJURY OR DEATH

Mounting your hinges may involve heights that will require some individuals to be elevated off of the ground. Make sure that any structure you use for climbing is secure and that you can safely maneuver up and down the various positions safely before attempting this installation.



CAUTION

MAY CAUSE PERSONAL INJURY OR PROPERTY DAMAGE

Hinges are required to be replaced in entire sets due to pin offsets; if pin offsets are mismatched then binding may occur throughout the door's normal range of motion and potentially damage various mating door components.

1. Beginning with top hinge, remove all fasteners in order to remove old hinge. Rivets cannot be re-used and will need to have the heads removed via drill. Depending on wear, screws may be re-used if their individual condition permits. However, new fasteners are always recommended and preferred.
2. Atwood non-motorized recreational vehicle entry doors will retain the same fastener hole pattern between standard and friction hinges, making alignment of the new hinges easier. With the friction

hinge aligned vertically against the door frame, line up the holes and apply (2) rivets in each of the small hinge leaves in the (2) vertical holes on each leaf. The 3rd, non-linear hole on each leaf is to be populated with a dealer specified screw. The screw specification is critical as it must be capable of connecting the hinge to the RV framework comprising located beneath the door frame. Due to the resistance the hinge introduces to the operation of the door, failure to connect the hinge to the sub-frame may compromise the door frame structure and potentially damage various mating door components.

3. Align the holes on the hinge's larger door leaf with the hole in the door and fasten with screws. Repeat steps 2 through 3 for subsequent hinges until all hinges have been replaced.

OPERATION

Using the friction hinge is a passive operation that occurs every time the door is open or closed.

The following instructions may be followed for adjusting the amount of resistance in the friction hinge.

TOOLS REQUIRED:

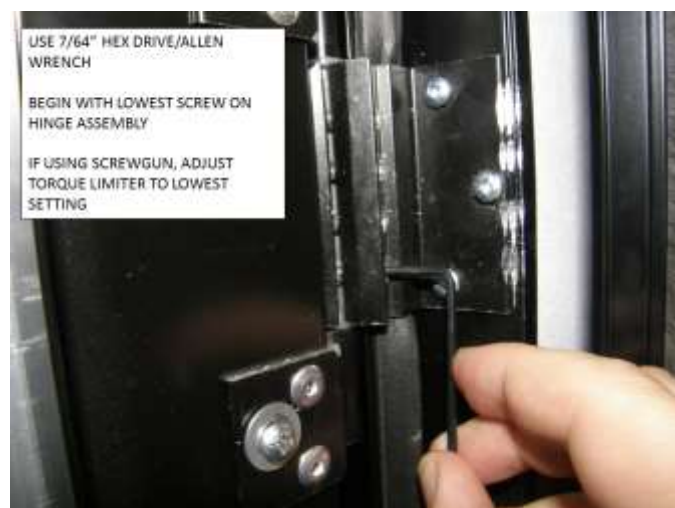
- 7/64" hex driver/allen wrench
- (optional) Screwdriver (screw gun recommended)
 - Type of driver determined by fastener



CAUTION

MAY CAUSE PERSONAL INJURY OR PROPERTY DAMAGE

There are limits to the amount of resistance any individual hinge can produce. Do not over tighten any fastener during the following procedure. The adjustment torque on any single fastener should not exceed 35 in-lbs. Special equipment may be necessary to measure or otherwise limit the amount of torque applied. Over tightening will result in permanent or otherwise unrecoverable damage to the resistive component of the hinge.



MAINTENANCE

The friction hinge is made from durable materials and is intended for outdoor use. However, minor maintenance may be required periodically.

The friction hinge may be cleaned with warm soapy water. Be sure to thoroughly rinse with clean water to retain finish. May be towel or air-dried.

Occasionally check to make sure all fasteners are tight and immediately replace any missing fasteners before use. Do not use door equipped with friction hinges if any fasteners are damaged, broken or missing as further damage may occur.

Periodically inspect the friction hinge components for any damage, cracks or broken pieces. Replace the friction hinge if damaged, cracked or broken.

The friction hinge once installed is intended to be a permanent component of the door. On occasion and during periods of adjustment, normal use of the door may result in creaking noises coming from the hinge. Mineral oil may be applied near the top of the pin groove and worked into the noisy area by cycling the door through its normal range of motion. As is the nature with lubricants, the resistance of the hinge may reduce once the lubricant is applied and will require readjustment of the hinge resistance (see Operation).



Atwood Mobile Products LLC warrants to the original retail customer of products manufactured by Atwood Mobile Products LLC and subject to the below mentioned conditions, that this product will be free of defects in material and workmanship for the below specified period of time from the original date of purchase or manufacture. For the remainder of this document Atwood Mobile Products LLC will be referred to as Atwood. Atwood's liability hereunder is limited to the replacement of the product, repair of the product, or replacement of the product with a reconditioned product at the discretion of the manufacturer. This warranty is not transferable and is intended for original purchaser only. This warranty is void if the product has been damaged by accident, unreasonable use, neglect, tampering, or other causes not arising from defects in material or workmanship. The warranty extends to the original owner of the product and is subject to the following conditions.

- 1) Atwood will repair or replace any part defective in material or workmanship, after inspection by Atwood. This warranty includes labor charges per Atwood's Flat Rate Schedule as required to remove and replace the part. Service calls to customer's location and diagnostic time are not considered part of these charges and, therefore may be the responsibility of the owner.
- 2) In the event of a warranty claim, service may be performed at any approved OEM dealer location
- 3) Parts being replaced must be shipped to Atwood "Prepaid" in first class saleable condition and identified with a return goods number, unless other arrangements have been made. Credit for shipping costs will be included with the warranty claim. The defective parts become the property of Atwood and must be returned to Atwood.
- 4) Returned goods – Goods may not be returned without our consent. Requests for returns should be made within 10 days from receipt of our invoice. If the parts being returned are not defective, Atwood reserves the right to apply a 20% restocking fee. We cannot accept material which has been custom fabricated or modified from its original design.
- 5) This warranty applies only if the product is installed, repaired, maintained and operated according to the installation/service instructions. Any deviations from these recommended specifications must be approved in writing by Atwood.
- 6) The warranty period on replacement parts is the unused portion of the original warranty period.
- 7) Damage or failure resulting from misuse (including failure to seek proper repair service), misapplication or alterations is the owner's responsibility.
- 8) Atwood does not assume responsibility for any loss of use, loss of time, inconvenience, expense for gasoline, telephone, travel lodging, loss or damage to personal property, or revenues. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.
- 9) Any implied warranties are limited to the product's warranty period. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.
- 10) Replacement parts purchased outside of the original warranty carry a 90-day warranty.
- 11) Any action to enforce this warranty shall not be commenced more than 3 months after the expiration of this warranty.
- 12) THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR PURPOSE.

Product Specifications for products listed below are designed for use for their specific application. Any other use, unless authorized in writing by the Atwood Engineering Department, voids this warranty. Original date of purchase of unit refers to the date the consumer purchases the vehicle from a dealer. Date of manufacture refers to the date the item was produced by Atwood Mobile Products.

Hinges – Two (2) years from original date of purchase of unit.

- 1) This limited warranty is valid only when the product is applied, installed, maintained and operated in accordance with this Atwood Installation, Maintenance and Operating Manual. Any deviation from these recommended specifications must be approved in writing by Atwood.
- 2) Any implied warranties are limited to the duration of this limited warranty as stated above. Atwood does not assume responsibility for consequential damage or loss, including loss of vehicle, loss of time, inconvenience, expense for gasoline, telephone, travel, lodging, loss or damage to personal properties, or loss of revenues. Atwood's maximum liability shall not exceed the cost of the goods. Some states do not allow limitations on how long an implied warranty lasts or limitations on consequential damages, so the above limitations may not apply to you. This limited warranty gives you specific legal rights which may vary from state to state.

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