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DEFECTS INVESTIGATION
RECALL MGMT DIV.

Safety Defect and Noncompliance Report Guide for Vehicles

PART 573 Defect and Noncompliance Report[1]

On December 20, 2007, DoubleTree RV decided that a defect which relates to motor vehicle safety exits in the motor vehicles listed below, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Reports.

Date this report was prepared: December 28, 2007

Furnish the manufacturer's identification code for this recall (if applicable): _____

1. Identify the full corporate name of the fabricating manufacturer of the vehicle being recalled. If the recalled vehicle is imported, provide the name and mailing address of the designated agent as prescribed by 49 U.S.C. §30164.

DoubleTree RV

1000 Interchange Drive

PO Box 235

Howe, IN 46746

Identify the corporate official, by name and title, whom the agency should contact with respect to this recall.

Deborah Baker

Governmental Compliance Manger

Telephone Number: 574-457-6472 **Fax No.:** 574-831-2308

Name and Title of Person who prepared this report.

Deborah Baker

Governmental Compliance Manager

Signed:

[1] Each manufacturer must furnish a report, to the Associate Administrator for Safety Assurance, for each defect or noncompliance condition which relates to motor vehicle safety.

This guide was developed from 49 CFR Part 573, "Defect and Noncompliance Reports" and also outlines information currently requested. Any questions, please consult the complete Part 573 or contact Mr. George Person at (202) 366-5210 or by FAX at (202) 366-7882.

I. Identify the Vehicle Models Involved in the Recall

2. Identify the Vehicles Involved in the Recall*, for each make and model or applicable vehicle line (provide illustrations or photographs as necessary to describe the vehicle), provide*:

Make(s): DoubleTree **Model Years Involved**: 2007 **Model(s)**: Elite, Mobile Suite, and Select Suite with optional disc brakes

Production Dates: **Beginning**: July 19, 2006 **Ending**: March 12, 2007

VIN Range: **Beginning**: 3251 **Ending**: 3718

Vehicle Type: 5th Wheel Recreational Vehicle **Bodystyle**: 3 Slideout

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:
2007 units, within Vin # range, with standard (Elite and Mobile Suites) or optional disc brakes (Select Suites).

Make(s): _____ **Model Years Involved**: _____ **Model(s)**: _____

Production Dates: **Beginning**: _____ **Ending**:

VIN Range: **Beginning**: _____ **Ending**: _____

Vehicle Type: _____ **Bodystyle**: _____

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:

_____

_____

Make(s): _____ **Model Years Involved**: _____ **Model(s)**: _____

Production Dates: **Beginning**: _____ **Ending**:

VIN Range: **Beginning**: _____ **Ending**: _____

Vehicle Type: _____ **Bodystyle**: _____

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:

Identify the approximate percentage of the production of all the recalled models manufactured by your company between the inclusive dates of manufacture provided above, that the recalled model population represents. For example, if the recall involved Widgets equipped with certain items of equipment from January 1, 1996 through April 1, 1997, then what was the percentage of the recalled Widgets of all Widgets manufactured during that time period.

II. Identify the Recall Population

3. Furnish the total number of vehicles recalled potentially containing the defect or noncompliance.

Model	Year	Number of Vehicles Potentially Involved
Elite, Mobile, and Select Suite	2007	467

Total Number Potentially Affected by the Recall: 359

4. Furnish the approximate percentage of the total number of vehicles estimated to actually contain the defect or noncompliance: Unknown

Identify and describe how the recall population was determined--in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled vehicles:

All units built with disc brakes using Active Technology "Acti-Brake" brake actuators. The dates and Vin # range were determined based on when DoubleTree RV began using the "Acti-Brake" brake actuator and when DoubleTree RV ceased using said product.

III. Describe the Defect or Noncompliance

5. Describe the defect or noncompliance. The description should address the nature and physical location of the defect or noncompliance. Illustrations should be provided as appropriate.

The defect is the brake actuator located in the middle of the utility compartment in the basement of the fifth wheel trailer. The actuator is 6" wide x 6" high x 12" long with a removable cap on top for brake fluid, a hydraulic line and wire harness out the back. The wire harness can melt and burn and/or brake fluid can enter the brake actuator housing, due to a crack in the housing, causing fluid to contact a circuit board and potentially cause loss of braking power on the unit. The order of events has not been determined.

Describe the cause(s) of the defect or noncompliance condition.

Same as above.

Describe the consequence(s) of the defect or noncompliance condition.

The wire harness can cause a thermal event or there can be a loss of braking power.

Identify any warning which can (a) precede or (b) occur.

The brake actuator may make an "unordinary" noise while the unit is parked. In the case of thermal event, there may be a smoke and/or electrical smell coming from the basement of the unit.

If the defect or noncompliance is in a component or assembly purchased from a supplier, identify the supplier by corporate name and address.
Active Technology

7600 Sand Drive

Fort Worth, TX 76118

Identify the name and title of the chief executive officer or knowledgeable representative of the supplier:
Phillip Stanhop, President, Active Technology

IV. Provide the Chronology in Determining the Defect/Noncompliance

If the recall is for a defect, complete item 6, otherwise item 7.

6. With respect to a defect, furnish a chronological summary (including dates) of all the principle events that were the basis for the determination of the defect. The summary should include, but not be limited to, the number of reports, accidents, injuries, fatalities, and warranty claims.

See Section 6 below – same as Active Technology submission

7. With respect to a noncompliance, identify and provide the test results or other data (in chronological order and including dates) on which the noncompliance was determined.

No definitive test results available.

V. Identify the Remedy

8. Furnish a description of the manufacturer's remedy for the defect or noncompliance. Clearly describe the differences between the recall condition and the remedy.

Active Technology has arranged to conduct a recall to remedy the potential defect in DoubleTree RV's vehicles at no charge to the vehicle owner. Pursuant 573.6(c)(8)(i) and 573.13, owners will be advised that Active

Technology will reimburse them if they have incurred cost to obtain a remedy prior to their receipt of notification. In the remedy procedures, the brown wire in the brake actuator is disconnected and a hole is drilled in the body of the actuator to inspect for brake fluid. If fluid is present, the brake actuator will be replaced. See attached repair instructions.

Clearly describe the distinguishing characteristics of the remedy component/assembly versus the recalled component/assembly.

In the remedied component, the brown wire in the brake actuator is either non-existent or is not connected. There is a differentiating part number in the brake actuator unit with no brown wire versus a unit with the brown wire.

Identify and describe how and when the recall condition was corrected in production. If the production remedy was identical to the recall remedy in the field, so state. If the product was discontinued, so state.

The Active Technology brake actuator was discontinued in March 2007 and replaced by a brake actuator produced by Carlisle Industries due to unrelated issues.

VI. Identify the Recall Schedule

Furnish a schedule or agenda (with specific dates) for notification to other manufacturers, dealers/retailers, and purchasers. Please, identify any foreseeable problems with implementing the recall.

Once a recall number has been established and mailing materials approved, the notifications should be complete within 10 business days.

VII. Furnish Recall Communications

9. Furnish a final copy of all notices, bulletins, and other communications that relate directly to the defect or noncompliance and which are sent to more than one manufacturer, distributor, or purchaser. This includes all communications (including both original and follow-up) concerning this recall from the time your company determines the defect or noncompliance condition on, not just the initial notification. ***A DRAFT copy of the notification documents should be submitted to this office by Fax (202-366-7882) for review prior to mailing.***

Note that these documents are to be submitted separately from those provided in accordance with Part 573.8 requirements

SECTION 6
Chronological summary

In early August, Pat Murphy from Double Tree RV reported a thermal event on a trailer in Utah and requested that Active Technology consider going to the site of the event and investigate the cause. We made several attempts to get contact information and location of the unit from Double tree RV without success until I received a call from Larry Thatcher of Thatcher and Associates on August 28, 2007. Thatcher and Associates are representing Double Tree RV in the role of consultant. Mr. Thatcher informed me of another thermal event that occurred in Green River, Wyoming. After this conversation with Mr. Thatcher, I was able to make arrangements through Double Tree to get the location of the thermal event in Utah.

On September 5, 2007, Mr. Thatcher and I arrived at the trailer involved in the thermal event in Vernal, Utah. We found there had been excessive heat on the wires at the connector of the ActiBrake wiring harness as well as heat related damage to the "harness end" of the ActiBrake. The 30 amp fuse in the ActiBrake harness was blown, the 50 amp trailer circuit breaker was tripped, and the 15 amp AC circuit breaker to the AC to DC converter was blown. The trailer was plugged into "shore power" at the time of the thermal event (i.e. the brakes were not being activated at the time of the thermal event). The owner of the trailer reported that he disconnected shore power and pulled the power disconnect switch on the outside of the trailer to stop the thermal event.

The ActiBrake harness has five wires; 12 gauge orange with 30 amp fuse (+12 volt supply), 10 gauge white (ActiBrake ground wire), 14 gauge brown (battery charge wire), 14 gauge blue (brake signal from tow vehicle in-cab brake controller), and 16 gauge orange wire (cold side of breakaway switch).

The wire connections were made to the wiring harness using cap-type crimp connectors. The wiring was as follows:

- 12 gauge orange wire with the 30 amp fuse was connected to a 12 gauge white wire with a purple stripe, which ran from the harness to the junction box at the pin box in the front of the trailer. At this connection, the 12 gauge white with purple stripe was spliced with a 12 gauge black wire from the trailer cord, a 14 gauge black wire that went to the "hot" side of the breakaway switch, and a 12 gauge black wire that went to the output side of the 50 amp trailer breaker.
- 10 gauge white wire was connected to a 12 gauge white wire that ran to the junction box at the pin box in the front of the trailer. This 12 gauge wire was inside of a red "jacket" along with a 12 gauge black wire which was used for the brake signal wire (see below). At the pin box, this 12 gauge white wire was spliced together with several other white ground wires, including the ground wire from the trailer cord, using a large wire nut. A short piece of 12 gauge white wire was run from this splice to a grounding lug that was attached to the trailer frame inside of the junction box using a self-tapping screw.
- 14 gauge brown wire was connected to a 12 gauge white wire that was connected to the output side of the 50 amp trailer breaker
- 14 gauge blue wire was attached to the 12 gauge black wire that was inside the

red jacket with the white wire (see above). This 12 gauge black wire ran to the junction box at the pin box in the front of the trailer where it was spliced with the 12 gauge blue wire from the trailer cord.

- 16 gauge orange wire was attached to a 12 gauge white wire which ran to the junction box at the pin box at the front of the trailer where it was spliced to a 14 gauge black wire that ran to the cold side of the breakaway switch.

The wires attached to the 50 amp trailer breaker are as follows:

- 6 gauge black wire from the positive terminal of the battery was attached to the battery-side of the breaker.
- 12 gauge black wire was attached to the output side of the 50 amp trailer breaker, which ran to the junction box at the pin box at the front of the trailer (see above)
- 12 gauge white wire was attached to the output side of the trailer breaker, which ran to the 14 gauge brown wire of the ActiBrake harness.
- 6 gauge black wire from the DC shutoff switch between the AC to DC converter positive output and the trailer circuit breaker, was attached to the output side of the 50 amp trailer breaker.

On September 7, 2007, Mr. Thatcher and I arrived at the trailer in Green River, Wyoming which experienced a thermal event. The condition of the wires, at the wiring harness, were similar to the one located in Utah. The wires from the ActiBrake harness in this occurrence had been completely displaced from the harness connector. It was difficult to tell if the wires became separated during the thermal event or if they became displaced as a result of the investigation by the local Fire Marshal and/or others, during their initial investigation. The 30 amp fuse in the ActiBrake harness was blown, the 50 amp trailer breaker was tripped, and the 15 amp AC circuit breaker was tripped. These items were also noted on the trailer in Vernal, Utah. The trailer in Green River, Wyoming was wired the same way as the trailer in Vernal, Utah (see above).

On October 8, 2007, I was notified by Double Tree that they had a report of a trailer that was at a dealer in Sikeston, Missouri that had a problem that appeared to be similar to the two described above. On October 9, 2007, I arrived at Sikeston, Missouri to investigate the problem. When I arrived, I found that the ActiBrake actuator had already been removed from the trailer and that the wires from the harness had been cut off approximately four inches from the ActiBrake harness connector. The technician who did the initial investigation told me the trailer owner reported he smelled smoke in the area of the brake actuator, but he (the technician) could not immediately see the source of the smoke. The technician said he had plugged the trailer in to shore power to find out where the smoke was coming from and found immediately upon plugging in the power cord. I checked the 50 amp trailer breaker, which I found to be tripped. I checked the trailer wiring to the ActiBrake harness and found this unit to be wired the same as the trailer in Vernal, Utah and the trailer in Green River, Wyoming. It was the Technician's comment about how he found where the smoke that originated from on the Sikeston trailer that brought to light the problem with the way the power from the converter was connected to the 50 amp trailer breaker. There was no power to any of the ActiBrake wiring when the 50 amp breaker was tripped, and the power from the converter was disconnected. When the power was restored to the converter, both the 12 gauge orange

wire with the 30 amp fuse and the 10 gauge brown wires had power. Hence, there is a situation where neither the 30 amp circuit breaker on the ActiBrake power wire, nor the 50 amp breaker in the trailer wiring protected the brown wire from over-current.